1969

45th annual

SUMMARY OF ILLINOIS FARM BUSINESS RECORDS

Commercial Farms:

PRODUCTION
COSTS
INCOME
INVESTMENTS

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN
COLLEGE OF AGRICULTURE
COOPERATIVE EXTENSION SERVICE
CIRCULAR 1019

Source of Data

This report is based on data obtained from farm business records on 6,500 Illinois farms. It is the 45th in a series of annual summaries of such records obtained from farmers cooperating with the University of Illinois Cooperative Extension Service, the Department of Agricultural Economics, and the Illinois Farm Business Farm Management Association.

At present about 1 out of every 10 full-time commercial farmers (farmers with $10,000 or more of gross sales) in Illinois is enrolled in this service. The service has grown steadily, and in 1970 there are 10 associations in 102 counties served by 42 full-time fieldmen. Participation in this farm business analysis program is voluntary, and cooperating farmers pay a fee for the services received.

The development since 1940 is shown by the following figures:

Year	*Associations*	*Counties participating*	*Fieldmen employed*	*Farmers enrolled*
1940	3	23	3	680
1945	8	54	9	1,830
1950	8	59	15	2,760
1955	9	89	24	4,501
1960	10	100	33	5,494
1965	10	102	39	6,366
1970	10	102	42	6,553

Over 98 percent of the 6,500 farms in this report fall within the size of business of Economic Class I, II, and III as defined in the 1964 Census of Agriculture. These three classes include farms selling $10,000 or more of farm products a year.

The segment of Illinois agriculture that includes Economics Class I, II, and III farms is often referred to as "commercial farming." In 1964, there were 68,322 farms in Illinois with more than $10,000 of product sales. These farms represented 52 percent of the total number of farms and produced nearly 90 percent of the products sold from Illinois farms.

Although the record-keeping farms in this report are largely within the first three economic classes, they are not proportionately distributed among the groups. In 1964, the Census of Agriculture identified 3,832 Illinois farms with more than $60,000 in sales. Over one-third (34 percent) of these farms were enrolled in the Illinois Farm Business Farm Management Association. Of the 6,152 farms that sold from $40,000 to $59,000 of products, 24 percent participated in the farm record program. There were 32,881 Economic Class III farms in the 1964 Census of Agriculture (farms with sales ranging from $10,000 to $19,999). Only 730, or 2.2 percent, of these farms were enrolled in the record-keeping program.

The data presented in this report are group averages identified by size of business, type of farm, and quality of soil found on the farm. Where segments of Illinois agriculture are identified by these criteria, the data from record-keeping farms may be used with reasonable confidence, even though the record-keeping farms as a group do not represent a cross-section of all commercial farms in the state.

Uses for This Report

The management of a modern commercial farm involves decision making in the application of technology, the choice of a proper combination of crop and livestock enterprises, and effective business administration of the farming operations. A basic farm business analysis involves a careful study of past performance to detect problem areas and strengths in the farming operation. Also involved is the process of planning and developing future operations to attain the full potential of the land, labor, and capital resources available and to improve economic efficiency of the farm business.

The farm business summaries contained in this report are used by individual farmers to analyze their business operations and as a basis on which to develop plans for future farming operations. This report summarizes the information so that specialists working in agricultural extension, research, teaching, and agribusiness activities may use the data to assist them in the effective performance of their duties.

The data are presented in three sections. In the first part of the report (Tables 1 to 4), one-man grain farms and recent changes in farm income on Illinois farms are summarized. Economic forces and factors that contribute to these changing trends are identified.

In the second section, detailed livestock enterprise data are presented. These data (Tables 5 to 13) provide comprehensive and detailed information for use as resource data by all who are interested in livestock production. Because a large proportion of the feed grains and roughage produced on Illinois farms is marketed through livestock, the margins of income from livestock enterprises are important in interpreting the economic results of farming operations.

The third section (Tables 14 to 18) reports costs, returns, financial summaries, investments, land use, and crop yields for different sizes and types of farms in northern and southern Illinois. The definitions of terms and accounting measures that precede these tables will aid in using the data.

SUMMARY OF ILLINOIS FARM BUSINESS RECORDS, 1969

Farm business trends in 1969

Illinois agriculture is based largely on crop production, especially the corn and soybean crops. The total value of corn and soybeans produced on Illinois farms in 1968 was equal to 54 percent of the total cash sales of crops, livestock, livestock products, and government payments in the same year. The five major crops of corn, soybeans, wheat, oats, and hay harvested were equal in value to 62.8 percent of the cash sales on Illinois farms in 1968.

Year-to-year variations in net farm income are related to variations in crop yields. In 1969 Illinois farmers produced record yields of soybeans. Corn and wheat yields were above 1968 but below 1967 yields. Crops were generally planted under average conditions, but growing conditions made yields variable outside the main corn growing areas. Early crop reports indicated record high corn yields but unfavorable growing conditions in southern and western Illinois caused yields to be lower than expected. However, yields in northern, eastern, and central Illinois were the highest on record.

In 1969 corn yields for the state, as recorded by the Illinois Crop Reporting Service, were 98 bushels per acre, 9 bushels above the average yield of 89 bushels in 1968, but 2 bushels below the previous record yield in 1967. Soybean yields in 1969 were 33.5 bushels per acre, 1.5 bushels above the 1968 yield and highest on record. Winter wheat yields were 37 bushels per acre, 2 bushels below the record high yield established in 1967. Corn and wheat acreage harvested was down 3 and 6 percent respectively from 1968, while soybean acreage was down 1 percent.

Crop and livestock prices. A second major determinant of change in farm income is the price farmers receive for crop and livestock products. In 1969 market prices received by farm account cooperators for farm crops were above the 1968 prices for corn but below 1968 prices for soybeans and wheat (see Table 13). Market prices for hogs averaged $23.08, up from the $18.54 received in 1968. Prices received for slaughter steers and heifers averaged $29.15, up $2.86 from the average price of a year earlier. Egg prices averaged 39 cents a dozen, up 5 cents from the 34 cents received in 1968. Milk prices averaged $5.07 per 100 pounds in 1969, up 18 cents from 1968 and up $1.30 from 1965. Prices during the last half of the past decade as compared with the first half averaged 33 percent higher for hogs, 9 percent higher for beef cattle and eggs, and 12 percent for milk.

One-man grain farms with no livestock[1]

There is a wide range in the acres of land operated as one-man grain farms with no livestock. The distribution of record-keeping northern Illinois farms by acres in the farm for one-man farms for the years 1968 and 1969 is shown in Table 1. Eighteen percent of the farms were under 260 acres, 28 percent ranged from 260 to 339 acres, 37 percent ranged from 340 to 449 acres, 14 percent ranged from 500 to 649 acres, and 3 percent had more than 650 acres. The average for all one-man grain farms with no livestock was 387 acres. A one-man farm was defined as one employing 10.0 to 14.9 months of available labor.

The data in Table 1 indicate that the larger-sized farms were more profitable for the farm operator and just as efficient in the use of land as smaller-sized farms. Residual earnings to labor and management increased with the number of acres farmed. Labor and management earnings per tillable acre were higher for larger farms than for smaller farms.

By holding the months of available labor to be employed constant, the farms were arranged into different levels of labor efficiency. The smaller farms did not utilize nearly as many hours of labor available as did the larger farms.

The total value of farm production per tillable acre was nearly the same for all sizes of farms. Returns to labor and management per tillable acre increased mainly because of the reduction in machinery and building costs per tillable acre. The total investment in machinery and buildings increased. However, the investment per acre declined and acres farmed increased. Cash expenditures per tillable acre for fertilizer, seed and crop expense, and nonfeed costs, other than labor and machinery, were nearly the same for all size groups.

Capital and management earnings per acre increased as more acres were farmed by one man. This result differs from the usual production relationship in which average returns from land and capital should decline when added to a fixed labor resource. The farm summary data may reflect the fact that while available labor was held constant in the various size groupings, the managerial capacity was not.

The size of grain farms operated by one man will continue to vary widely. Lack of land to rent or buy

[1] This section was prepared from information previously published by R. A. Hinton, Department of Agricultural Economics, University of Illinois at Urbana-Champaign, in Farm Management Facts and Opinions Newsletter 70-6, "How Many Acres for a One-Man Grain Farm?" July, 1970.

Table 1. — Selected Cost and Return Items for One-Man Grain Farms (Without Livestock) With Soil Rating 56–100, Northern Illinois, 1968–69 Average

Range in size (total acres)	180–259	260–339	340–499	500–649	650+	All sizes
Number of farms	62	94	126	48	12	342
Total acres per farm	224	304	410	556	726	378
Tillable acres per farm	212	288	382	508	638	351
Soil productivity rating	87	82	80	80	73	83
Total months of labor	12.0	12.6	13.0	13.2	13.3	12.8
INVESTMENT PER FARM						
Land	$142,095	$195,880	$254,366	$338,390	$393,810	$234,513
Machinery and buildings	18,970	22,530	28,282	40,158	44,883	27,217
Grain and livestock inventory	15,124	20,195	24,572	28,618	35,988	22,564
Total farm investment	**176,189**	**238,605**	**307,220**	**407,166**	**474,681**	**284,294**
Value of farm production	22,861	30,872	41,109	54,605	69,732	37,884
Cash operating expenses[a]	9,804	12,637	16,342	22,237	27,790	15,345
Net depreciation	3,200	3,952	4,664	6,420	7,660	4,552
Interest charge on capital	7,714	10,407	13,346	17,554	20,604	12,354
Return to all labor and management	2,143	3,876	6,757	8,394	13,678	5,633
SELECTED COSTS AND RETURNS PER TILLABLE ACRE						
Soil fertility	$ 10.03	$ 10.84	$ 10.98	$ 12.44	$ 13.84	$ 11.33
Buildings and fence	5.22	4.22	3.73	3.44	3.57	3.93
Machinery and equipment	25.87	23.04	21.68	20.72	20.28	22.21
Labor	21.23	16.27	12.79	9.84	8.14	13.64
Seed and crop	7.92	8.48	8.06	9.30	8.17	8.41
Total value of farm production	107.83	107.19	107.62	107.49	109.30	107.93
Total nonfeed costs	118.96	110.01	102.72	100.81	96.01	105.52
Management returns	**−11.13**	**−2.82**	**4.90**	**6.68**	**13.29**	**2.41**
Return to all labor and management						
Per month of labor	$178.58	$307.62	$519.77	$635.91	$1,028.42	$440.08
Per tillable acre	10.11	13.46	17.69	16.52	21.44	16.05
Returns to capital and management per acre	23.92	31.57	37.11	37.68	40.70	34.92

[a] Hired labor expenses omitted.

may prevent some grain farms from getting larger. Some farms will be operated by operators who may prefer to continue to farm the land as part-time or semi-retired farmers. For others, continuing or adding livestock may be a reasonable alternative to adding land. But, all things being equal, the greater economic rewards to one-man grain farms over 340 acres in size suggest that the trend toward larger-sized grain farms will continue as land for enlargement becomes available.

Income changes on Illinois farms

Comparative costs and returns between years and among major types of farming in northern and southern Illinois are reported in Tables 2 to 4. The separation of farms into northern and southern Illinois is based on soil-type regions, and divides the state approximately on an east-west line from Mattoon to Jacksonville. The sample of farms ranged between 260 and 339 acres in size, and averaged about 300 acres. Labor used on farms of this size averaged 14 months on grain farms, 16 months on hog and beef farms, and 19 months on dairy farms in northern Illinois, and 21 months on dairy farms in southern Illinois. The data in these tables are presented as if the farms were all owner-operated. Landlord and tenant shares of the business were combined where farms were leased.

Size of farm, type of farm, quality of soil, and managerial inputs were held reasonably constant over time by the sampling procedure used in selecting farms within each type of farm. Variations among 1968, 1969, and the 10-year average are due to changes in farm prices and costs, weather, and internal farming adjustments made within each system of farming. The data in these tables are particularly helpful for evaluating changes in farm costs and returns within a particular size and type of farm, and in making comparisons between types of farming. The data do not reflect overall farming adjustments resulting from farm enlargement or major changes in resource use.

The farm and family earnings measure includes returns to the farm family for all unpaid labor, interest on invested capital, and managerial inputs used in farming. Changes in value of farm inventories and value of farm products consumed are included as income. Farm and family earnings are calculated by accounting methods that are generally comparable to the accrual method of calculating taxable farm income for the federal income tax. Important differences in accrual income tax accounting methods are the provision for capital gains on livestock sales and the inclusion of interest paid as a farm expense.

The cash balance figure is the amount taken out of

Table 2. — Average Selected Total Farm Items on 260–339 Acre Northern Illinois Grain, Hog, and Dairy Farms

	Grain farms			Hog farms			Dairy farms		
	1969	1968	1960–69 average	1969	1968	1960–69 average	1969	1968	1960–69 average
Number of farms	205	178	161	69	69	86	20	28	22
Total acres	304	301	302	299	295	298	298	290	294
Soil-productivity rating	80	77	80	75	73	74	71	71	70
Total cash sales	$37,672	$35,599	$31,919	$65,548	$52,368	$50,422	$49,536	$43,298	$39,987
Less purchased feed and livestock	4,169	4,512	4,023	18,502	14,510	16,407	7,372	5,574	6,888
Net cash sales	33,503	31,087	27,896	47,046	37,858	34,015	42,164	37,724	33,099
Inventory change	3,219	−2,637	1,277	6,876	−536	2,029	1,205	264	1,195
Farm products consumed	120	113	120	223	175	225	351	279	323
Value of farm production	36,842	28,563	29,293	54,145	37,497	36,269	43,720	38,267	34,617
Cash operating expenses	13,879	13,416	11,331	18,243	16,691	14,073	18,476	17,072	14,985
Annual depreciation	4,528	4,222	3,710	6,232	5,648	4,757	6,327	6,136	5,569
Farm and family earnings	**18,435**	**10,925**	**14,252**	**29,670**	**15,158**	**17,439**	**18,917**	**15,059**	**14,063**
Unpaid labor charge	4,793	4,357	3,379	5,509	4,788	3,683	6,140	5,344	4,365
Returns to capital and management	13,642	6,568	10,873	24,161	10,370	13,756	12,777	9,715	9,698
Interest charge on capital	10,492	10,064	8,241	11,036	10,296	8,390	10,531	10,081	8,367
Management returns	**3,150**	**−3,496**	**2,632**	**13,125**	**74**	**5,366**	**2,246**	**−366**	**1,331**
Total cash income[a]	37,761	35,626	32,092	65,687	52,542	50,593	49,542	43,407	40,275
Total cash expenditures[a]	21,519	20,898	19,070	43,271	38,052	36,420	33,086	29,226	28,018
Cash balance	16,242	14,728	13,022	22,416	14,490	14,173	16,456	14,181	12,257
FARM INVESTMENT									
Livestock inventory	$ 4,393	$ 5,949	$ 4,880	$17,960	$16,887	$17,073	$18,424	$15,269	$16,790
Grain inventory	16,846	19,274	15,046	17,034	17,966	14,400	14,379	14,627	11,422
Remaining capital cost in:									
Machinery and auto	12,452	11,752	9,290	15,796	14,150	10,812	16,665	14,985	13,138
Buildings and fence	13,015	13,727	13,348	19,908	20,828	17,510	22,824	26,650	25,879
Soil fertility	40	67	199	94	78	194	14	32	111
Value of land (current basis)	192,073	175,449	147,881	169,822	152,539	127,827	154,810	144,696	117,542
Total farm investment	238,819	226,218	190,644	240,614	222,448	187,816	227,116	216,259	184,882

[a] Includes sales or purchases of capital items.

the farm business to pay for living costs, income and social security taxes, interest, debt repayment, and to add to savings. Purchases of new capital investments for the farm business have been included with total cash expenditures. Although the cash balance figure reflects the cash position of the farm business, it is influenced by purchases and sales of feed and livestock and by changes in liabilities and borrowed funds.

The investment per farm is for January 1 of each year. Physical quantities of grain and livestock are valued at farm market prices. Machinery, buildings, soil fertility, and auto are valued at remaining capital cost; that is, original cost less depreciation charged to date. Land is priced at current values. A basic value is established for each farm, based on a soil productivity rating, and is adjusted to a current value each year by using an index of land prices in Illinois.

Northern Illinois farms

Grain farms. Farm and family earnings on northern Illinois 300-acre grain farms in 1969 were $18,435 compared with $10,925 in 1968 (see Table 2). The 23-bushel higher corn yields and 3-bushel higher soybean yields combined with 12-cent higher corn prices in 1969 than in 1968 brought partial recovery from the unusually low earnings of the previous 2 years.

Total costs have increased since 1960 at an average annual rate of $1,227 per farm while net cash sales have increased only $1,044. The continuous rise in costs, which exceeded rise in income, makes this size and type of farm less profitable each year. Without supplemental or off-farm income, acres must be increased to maintain an economic unit.

Hog farms. Farm and family earnings on 300-acre northern Illinois hog farms in 1969 were about double the 1968 earnings (see Table 2). This is because corn yields were 10 to 15 bushels per acre higher and because there was an increase of $4.54 per 100 pounds of all hogs sold in 1969 as compared with 1968.

Since 1960, total costs increased 6 percent per year, but net cash sales per farm increased 7 percent. Months of labor used decreased from 20 to 16 months, while litters farrowed per farm increased from 80 to 100 in this same period. This is one of the most profitable size and type of farms in Illinois.

Dairy farms. Farm and family earnings on 300-acre northern Illinois dairy farms in 1969 were $18,917 compared with $15,059 in 1968. An 18-cent higher average selling price per hundredweight of milk sold in 1969 over 1968, and higher crop yields, helped increase management returns in 1969 to the levels that were earned during the period from 1964 to 1966.

Since 1960, net cash sales on these farms have increased 5 percent per year, but costs have also increased 5 percent. The average annual rate of increase in total investment per farm has been slightly less than for other types of farms.

Beef farms. Farm and family earnings on 300-acre northern Illinois beef farms averaged $27,067 in 1969. This compares with average earnings of $16,312 during the past 10 years. A low earnings of $8,966 was recorded in 1963, and the previous high earnings of $21,725 was recorded in 1965. High crop yields and higher beef prices combined to make 1969 a high earning year.

Since 1960, total costs have increased about as much as net cash sales. Returns above all costs in the recent 5-year period (1965-1969) have averaged $2,684 more per year than they did in the 5-year period from 1960 through 1964. While earnings on beef farms have improved, they continue to be variable and lower than the average earnings during the past 10 years for the same size grain and hog farms.

Table 3. — Average Selected Total Farm Items on 260–339 Acre Northern Illinois Beef Farms

	1969	1968	1960–69 Average
Number of farms	38	38	53
Total acres	301	300	300
Soil-productivity rating	76	76	77
Total cash sales	$103,527	$ 89,757	$ 74,517
Less purchased feed and livestock	56,553	49,551	40,094
Net cash sales	46,974	40,206	34,423
Inventory change	6,358	2,617	1,765
Farm products consumed	464	360	336
Value of farm production	53,796	43,183	36,524
Cash operating expenses	19,189	17,346	14,572
Annual depreciation	7,540	6,647	5,640
Farm and family earnings	**27,067**	**19,190**	**16,312**
Unpaid labor charge	5,448	4,716	3,652
Returns to capital and management	21,619	14,474	12,660
Interest charge on capital	14,008	13,282	10,550
Management returns	**7,611**	**1,192**	**2,110**
Total cash income[a]	103,883	89,883	74,724
Total cash expenditures[a]	85,320	73,492	60,923
Cash balance	18,563	16,391	13,801
FARM INVESTMENT			
Livestock inventory	$ 44,594	$ 40,742	$ 35,050
Grain inventory	21,808	21,282	17,973
Remaining capital cost in:			
Machinery and auto	17,934	16,550	12,544
Buildings and fence	30,387	30,229	25,633
Soil fertility	103	138	221
Value of land (current basis)	177,960	168,647	139,025
Total farm investment	292,786	277,588	230,446

[a] Includes sales or purchases of capital items.

Southern Illinois farms

Grain farms. Farm and family earnings on southern Illinois 300-acre grain farms averaged $13,631 in 1969. This is $5,507 higher than in 1968 and $3,567 above the average for the past 10 years. This is the first time that earnings have exceeded $13,000 on a total farm basis. However, the net returns to management in 1969 were actually lower than in 1965 or 1966 because charges for interest and unpaid labor increased more than earnings.

Many factors contributed to higher net earnings during the year. Slightly higher, but more variable, corn and soybean yields in south central Illinois, combined with larger diverted acre payments and higher grain prices, offset the effect of growing 6 percent fewer acres of corn and soybeans. The unusually low earnings of 1968 and fewer acres of row crops in 1969 caused farm operators to reduce cash operating expenses $813 per farm below the previous year. Very favorable livestock feed-price ratios helped boost net cash sales from livestock $2,985 above 1968 sales.

Since 1960, cash operating expenses have increased an average of 5 to 6 percent each year while net cash sales per farm have increased 6 to 7 percent. Total farm investments per farm have increased in this period at an average annual rate of 5 percent. But the total months of labor used have declined from 15.6 to 14.1. Farmers are selling more products from the same 300-acre farm and using more labor and more capital to do it.

Hog farms. Farm and family earnings on southern Illinois 300-acre hog farms averaged $19,838, up $7,645 from 1968 and $7,107 above the average for the 10 years from 1960 through 1969. This was the highest earning year on record for this group of farms. But considering increases in charges for unpaid labor and capital invested, 1969 actually had lower returns for management than 1965.

Factors affecting 1969 earnings on grain farms also influenced earnings on hog farms. But higher average prices of three to four dollars received per 100 pounds of beef and pork sold in 1969 resulted in $5,822 greater livestock cash sales than in 1968.

Management returns (returns above all cash and noncash costs) have averaged 2.8 times higher for the 1965-1969 period than for the 1960-1964 period — $7,798 compared with $2,738. Hog farms of this size

Table 4. — Average Selected Total Farm Items on 260–339 Acre Southern Illinois Grain, Hog, and Dairy Farms

	Grain farms			Hog farms			Dairy farms		
	1969	1968	1960–69 average	1969	1968	1960–69 average	1969	1968	1960–69 average
Number of farms	34	42	47	23	31	35	24	25	24
Total acres	304	301	300	294	297	295	292	296	296
Soil-productivity rating	34	32	34	35	33	33	28	29	29
Total cash sales	$29,496	$27,727	$24,473	$46,812	$40,409	$37,662	$45,229	$42,340	$33,061
Less purchased feed and livestock	3,881	3,756	3,337	13,753	11,544	12,776	9,153	7,109	5,938
Net cash sales	25,615	23,971	21,136	33,059	28,865	24,886	36,076	35,231	27,123
Inventory change	2,188	−964	966	3,277	131	2,037	1,934	−218	1,444
Farm products consumed	178	118	157	260	138	213	569	365	365
Value of farm production	27,981	23,125	22,259	36,596	29,134	27,136	38,579	35,378	28,932
Cash operating expenses	10,350	11,163	8,923	12,294	12,713	10,795	16,709	16,381	12,452
Annual depreciation	4,000	3,838	3,272	4,464	4,228	3,610	6,655	6,151	4,653
Farm and family earnings	**13,631**	**8,124**	**10,064**	**19,838**	**12,193**	**12,731**	**15,215**	**12,846**	**11,827**
Unpaid labor charge	4,997	4,163	3,327	4,981	4,073	3,397	5,844	4,784	3,940
Returns to capital and management	8,634	3,961	6,737	14,857	8,120	9,334	9,371	8,062	7,887
Interest charge on capital	4,907	4,610	3,773	5,210	5,227	4,066	6,189	5,734	4,417
Management returns	**3,727**	**−649**	**2,964**	**9,647**	**2,893**	**5,268**	**3,182**	**2,328**	**3,470**
Total cash income[a]	29,513	27,808	24,606	46,859	40,453	37,746	45,241	42,463	33,124
Total cash expenditures[a]	18,248	19,266	16,324	34,405	31,028	29,217	33,897	32,217	24,873
Cash balance	11,265	8,542	8,282	12,454	9,425	8,529	11,344	10,246	8,251
FARM INVESTMENT									
Livestock inventory	$ 5,214	$ 4,108	$ 4,244	$11,955	$12,316	$11,376	$14,615	$12,188	$11,538
Grain inventory	9,105	11,238	7,878	10,210	11,806	8,834	10,115	10,772	7,724
Remaining capital cost in:									
Machinery and auto	12,907	12,502			12,238			16,530	
Buildings and fence	6,200	5,189	15,669	20,263	9,176	17,200	39,097	16,349	26,229
Soil fertility	106	97			74			204	
Value of land (current basis)	72,421	65,438	56,283	66,604	62,249	50,486	58,985	59,299	47,896
Total farm investment	105,953	98,572	84,074	109,032	107,859	87,896	122,812	115,342	93,387

[a] Includes sales or purchases of capital items.

continue to show higher returns than similar-size farms classified as dairy or grain farms in southern Illinois.

Dairy farms. Farm and family earnings on 300-acre southern Illinois dairy farms in 1969 were $15,215. This was high enough to pay average market rates for all capital and unpaid labor used, and to provide a return of $3,182 for management. But operators on these farms had to increase their 1969 earnings over the previous year by $1,515 just to cover the higher unpaid labor and interest charges.

Since 1960, the 300-acre dairy farms have had greater percentage increases in costs and investments than similarly sized grain and hog farms. Cash operating expenses have increased 10 percent a year, 4 to 5 percent higher than for grain and hog farms. Total farm investment increased 7 percent a year compared with 5 percent on the other farms.

These changes reflect the rapid adjustments taking place on dairy farms. Since 1960, farms in this sample have increased size of dairy herds by 13 cows, from 32 in 1960 to 45 milk cows in 1969, and increased milk production per cow by 650 pounds. They have intensified land use, shifted to more confined feeding systems, and reduced the months of labor used from 22 to 21. These adjustments, plus an increase of more than $1 per hundredweight in milk prices since 1960, have made the 300-acre dairy farms one of the more profitable type of farms in southern Illinois.

LIVESTOCK ENTERPRISES

Table 5 shows the returns per $100 feed fed to various livestock enterprises and the price of corn during each of the past 15 years. Fifteen-year (1955 through 1969) averages are also shown. The difference between the average return figure and $100 feed cost represents the margin available to pay labor, depreciation on equipment, cash expenses other than feed, and interest on investment, and also to provide for profit.

The margin needed to cover nonfeed costs varies with the kind of livestock and depends on the proportion of total production costs represented by feed. The 15-year averages represent the approximate level of

returns at which farmers have been willing to maintain livestock production. This average may not represent break-even returns on all farms because some farmers may discount market prices for some resources used in producing livestock. If a farmer already has facilities for livestock, he need only cover operating costs to continue production. However, when he views livestock production as a new or long-run enterprise, he hopes to cover all costs — fixed and variable — or he may not undertake the enterprise.

As individual farmers try to increase profits, they tend to curtail livestock production when returns per $100 of feed fed are below the 15-year average and to increase production when returns are above average. This tendency on the part of producers causes supplies of livestock products to fluctuate.

Feeder-cattle returns vary greatly from year to year. Long-run average returns shown here indicate the cattle-feeding business is not paying average market rates for all resources used (see Table 7). Above-average skills are needed in buying, selling, and feeding to meet competition of other uses for time and money on farms feeding cattle. It is difficult to identify cyclic income movements over a 15-year period in the beef-cattle industry because it is more complex and adjusts more slowly than other livestock enterprises.

Dairy and poultry returns fluctuate less than beef-cattle returns from year to year. In all three enterprises 15-year average returns are below the margin needed to cover all fixed and variable costs. The implication is that these enterprises compete most favorably on farms with plentiful labor, capital, and management resources that have few alternative uses.

Raising livestock is becoming more competitive. Average profit margins are very narrow. Nonetheless, large numbers of farmers are willing to stay in business as long as their returns cover only operating costs. Expansion plans involving large investments for new facilities should be based on estimated returns that are high enough to cover all costs. Fluctuations in livestock returns can involve a risk in low-return years.

Table 5. — Returns per $100 Feed Fed to Different Classes of Livestock

Year	Beef-cow herds	Dairy-cow herds	Feeder cattle bought	Native sheep raised	Feeder pigs	Hogs	Poultry	Yearly price of corn
1955	94	168	106	103	95	109	142	$1.28
1956	103	177	117	137	129	142	133	1.30
1957	134	189	143	138	149	172	136	1.15
1958	162	199	144	98	144	180	142	1.10
1959	147	191	112	102	92	114	123	1.10
1960	129	200	117	108	143	164	157	1.03
1961	139	196	116	110	132	164	150	1.01
1962	149	190	148	126	129	159	144	.98
1963	117	171	88	126	108	131	141	1.11
1964	107	174	112	124	122	142	141	1.12
1965	127	174	151	143	176	210	143	1.15
1966	132	190	117	129	140	178	168	1.23
1967	138	199	119	117	123	154	128	1.17
1968	156	210	142	133	134	170	167	1.02
1969	162	205	152	146	171	212	203	1.14
1955-69 aver.	133	189	126	123	132	160	148	1.13

Hog enterprises

The information in Table 6 is based on a sample of 662 farms farrowing 10 or more litters per year. Farms were omitted from the sample if the number of hogs purchased exceeded 10 percent of pigs weaned. This eliminated those farms with combined farrowing and feeder-pig operations from the sample. Feeder-pig enterprise information is included in Table 8. Until 1969, the average size of hog enterprises on all record-keeping farms has been increasing at the rate of about 3 litters per year, from 41 litters (229 pigs weaned) per farm in 1956 to 77 litters (562 pigs weaned) in 1968. In 1969, the average size was 5 litters above 1968.

Returns per $100 feed fed to hogs were $212 in 1969. This was an increase of $42 from 1968. In 1969, the average price received per 100 pounds of pork sold increased $4.54 over 1968 while the average price per bushel of corn fed (see Table 5) increased 12 cents over the same period.

Table 6. — Hog Enterprises, 1969

	All farms	Litters farrowed	
		10–49	200+
Number of farms	662	250	36
Average per farm			
Pounds of pork produced	137,896	53,070	436,740
Total returns	$33,757	$12,721	$105,901
Value of feed fed	$15,958	$ 6,250	$ 49,851
Returns per $100 feed fed	$ 212	$ 204	$ 212
Returns above feed per litter	$ 217	$ 216	$ 197
Number of litters farrowed	82	30	284
Pigs farrowed per litter	8.9	8.8	8.6
Pigs weaned per litter	7.3	7.3	7.1
Number of pigs weaned	601	215	2,012
Number that died after weaning	21	8	80
Death loss, percent of pounds produced	1.4	1.5	1.7
Weight per hog sold	234	240	237
Price received per 100 pounds	$ 23.08	$ 22.69	$ 23.16
Feed cost per 100 pounds produced	$ 11.57	$ 11.78	$ 11.41
Feed per 100 pounds produced			
Farm grains, lb.	334	339	340
Commercial feed, lb.	75	74	78
Total concentrates, lb.	409	413	418
Pasture (pasture days)	.5	.7	.2
Cost per 100 pounds of commercial feeds	$ 6.24	$ 6.45	$ 5.71
Cost per 100 pounds of concentrates	$ 2.80	$ 2.82	$ 2.72

The 1969 hog enterprise records reported in Table 6 were also sorted by the number of litters produced. One group farrowing between 10 and 49 litters averaged 30 litters, while the group farrowing 200 or more litters averaged 284 litters.

There were no significant differences in production efficiency between the two groups. Feed cost per 100 pounds of pork produced was 37 cents higher for the small producers. They paid $15 per ton more for commercial feeds. Prices received (net at the farm) for hogs sold by the larger producers were 47 cents higher than those received by the smaller producers.

The 10-year average return above feed cost per litter shown in Table 7 is $126, $91 below the 1969 returns. On the basis of detailed cost records, which indicate that feed makes up 65 percent of the total cost of producing hogs, farmers would require returns above feed cost of $105 a litter to pay for all nonfeed costs.

Direct cash costs for items other than feed amounted to $21 a litter. Since 1960, the average Illinois hog producer has received a return of $21 per litter ($126-$105) above all feed and nonfeed costs each year. While this return appears to be a profitable one, the modest expansion in hog numbers suggests that a rather large profit margin is required to compensate farmers for the risk and detailed management involved in hog production when compared to other uses for the same resources. Large-scale hog production in modern confinement facilities requires large capital investments. The future recovery of the capital is uncertain and a tight money market has added to the concern. Acquiring the managerial skills necessary for successful production of a large volume of hogs in confinement is a problem. Farmers who have the capital and skill required to manage hogs may want to invest more resources in this enterprise.

Table 7. — Variation in Returns to Livestock Enterprise Units, 1960–1969

Year	Hogs (litters)	Feeder pigs (175 lb. gain)	Feeder cattle (500 lb. gain)	Dairy cattle (cow)	Beef herd (cow)[a]	Poultry laying flock (hen)
	Returns above cost of feed and purchased animals					
1960	$105	$7.22	$16	$228	$36	$2.30
1961	105	5.32	15	232	43	1.98
1962	98	4.75	43	219	54	1.72
1963	55	1.33	−11	193	19	1.70
1964	76	3.71	11	208	8	1.63
1965	204	14.84	47	216	30	1.71
1966	162	8.20	17	292	39	2.75
1967	107	4.29	18	314	43	1.28
1968	127	6.19	39	350	60	2.26
1969	217	14.25	50	361	70	3.03
10-year average	126	7.01	24	261	40	2.04
Nonfeed costs, direct cash only[b]	21	1.30	8	78	13	.40
Total nonfeed[c]	105	6.66	32	337	91	1.93

[a] The feed cost for beef herds includes up to $30 of hay equivalent from salvage roughage.

[b] Includes veterinary costs, taxes on equipment and livestock, fuel and equipment repair costs, and other direct cash expenses, from Table 6, Farm Management Manual, AE-4200.

[c] Estimates of annual nonfeed costs are based on enterprise cost studies of operative units in 1965–1969.

Feeder-cattle and feeder-pig enterprises

Calendar-year operations for feeder-cattle and feeder-pig enterprises are presented in Table 8. These enterprise summaries involve weights and values on partly finished animals purchased in prior years as well as on animals purchased in the current year.

Pork produced per farm from feeder-pig enterprises was 76,361 pounds in 1969 (see Table 8). In units of 175 pounds produced per head, this amounted to 436 head fed per farm in 1969 compared with 224 head in 1958.

Returns above the cost of feed and purchased animals shown in Table 7 for 1960 through 1969 averaged $7.01 per unit of 175 pounds of gain. This compares with the estimated return of $6.66 required to cover all of the nonfeed costs. If the very high returns above feed cost in 1965 and 1969 were excluded in the 10-year average, the average would have been about $2 per head short of the estimated total returns needed to pay all costs.

Assuming a 500-pound unit of gain equals one head of feeder cattle, the 95,967 pounds of beef produced per farm in 1969 (Table 8) is 192 head. This is 94 head more cattle fed per farm than in 1958. Returns per $100 feed fed for feeder-cattle enterprises were $152 in 1969 compared with $142 in 1968 and $126 for the past 15-year average (see Table 5).

The prices paid for feeders bought were $3.68 per 100 pounds higher in 1969 than in 1968, while prices received for cattle sold in 1969 were $2.86 higher. Finding cattle to feed at reasonable prices is becoming more difficult for Illinois feeders. Average weight purchased remained steady at 568 pounds per head. The higher feed cost of $19.31 per 100 pounds produced in 1969 compared with $18.62 in 1968 was due largely to the 12-cent higher market price for corn (see Table 5).

Pounds of concentrates and hay used per 100 pounds of beef produced decreased 63 and 96 pounds respectively since 1960. The pounds of silage used has increased 1.5 times during the same period. The end result of this shift has been increased production and utilization of crops from a fixed land resource. Mechanization of the silage feeding operation has also contributed to reduced labor per unit of production.

These data do not show the wide variation in profits that exists among cattle-feeding programs. Tables 5, 7, and 8 reflect the composite results of all types of feeder-

Table 8. — Feeder-Cattle and Feeder-Pig Enterprises, 1969

	Feeder cattle	Feeder pigs
Number of farms	353	122
Average per farm		
Total pounds produced	95,967	76,361
Total returns	$28,134	$14,929
Value of feed fed	$18,528	$ 8,714
Returns per $100 feed fed	$ 152	$ 171
Death loss, percent of pounds produced	2.2	2.3
Average weight purchased	568	50
Price paid per 100 pounds	$ 30.65	$ 41.82
Price received per 100 pounds	$ 29.15	$ 23.32
Feed cost per 100 pounds produced	$ 19.31	$ 11.41
Feed per 100 pounds produced		
Grain, lb	589	341
Protein and mineral feeds, lb	55	69
Total concentrates, lb	644	410
Hay, lb	76	...
Silage, lb	707	...
Pasture (pasture days)	2	...

cattle enterprises in Illinois as to quality and age of cattle fed. The data reported are heavily weighted with good-to-choice calves and yearlings as the predominant cattle-feeding system. Many farmers are now feeding more than one drove of cattle each year to provide a better utilization of fixed investments in mechanized feedlots.

Returns above cost of feed and purchased animals shown in Table 7 averaged $24 for each head of feeder cattle gaining 500 pounds for the 10 years from 1960 through 1969. During this period returns above feed costs per feeder have ranged from a loss of $11 in 1963 to a gain of $50 in 1969. Except for 1962, 1965, 1968, and 1969, returns above feed cost have been below the estimated $32 per feeder required to pay for all nonfeed costs for the average cattle feeder.

The direct cash costs exclusive of feed and interest costs associated with cattle feeding average about $8 per feeder. Returns above feed costs have exceeded the direct cash costs per head for all years except for 1963.

A large but declining number of cattle feeders in Illinois are apparently willing to feed cattle if their return is sufficient to cover feed and cash costs but short of paying average market rates for some of the fixed and farm overhead costs.

Farmers' values, goals, and attitudes have been important in maintaining production on the one hand, while the dictates of the market, technological change, and shifts in basic supply and demand factors are causing the need for change on the other hand. The low returns reflected in this average of all feeder-cattle enterprises would suggest that for cattle feeding to be profitable, farmers must produce the kind of beef the consumer wants at the lowest possible cost. Farmers considering expansion of this enterprise on farms where there are no nonmarketable feeds, unemployed labor, or fixed capital investments should budget carefully before they make new investments. New feedlot facilities generally increase direct cash costs when compared with the fixed costs associated with older facilities.

Dairy enterprises

The minimum size of herd included in this analysis was 10 milk cows. The average size of dairy herd has increased at the rate of about one cow per year since 1959. The total number of milk cows in Illinois on all farms has been declining at the rate of about 4.5 percent a year in this same period, but total pounds of milk produced in the state declined about 2 percent a year until 1964 and then 5 percent a year until 1968. While there are 50 percent fewer milk cows in the state than 10 years ago, the remaining cows are in larger herds and produce 31 percent more milk per cow.

Returns per $100 of feed fed in dairy enterprises in 1969 were $205, down $5 from 1968 (see Table 5). Higher milk and beef prices in 1969 were offset by higher feed costs. The higher feed costs reflect the 12-cent per bushel increase in the average price of corn fed in 1969.

Dairy farmers have reduced the amount of pasture and increased the amounts of grain and silage fed. Pasture days per unit (1,000 pounds of milk or 100 pounds of beef) remained at 15 days prior to 1959, but since 1960 have declined to 6 days in 1969.

The dairy herds in Table 9 were divided into three groups: herds with no pasture days per animal unit, those with 1 to 79 days, and those with 120 days or more. Each year a few more farmers have been adopting the practice of feeding cows in drylot. Dairy herds with no direct grazing averaged 46.1 cows per farm compared with 27.8 cows per farm where a full pasture program was used.

The main difference among these three groups of dairy herds is the amount of land required per cow to produce roughage. When pasture and hay fields are figured at 150 pasture days and 3 tons per acre respectively, farms with drylot feeding required only 1.3 acres per cow to produce grass-legume forages, while farms with over 120 pasture days per animal unit used 3.2 acres. Additional roughage was obtained through the corn silage on the no-grazing farms.

Part of the additional cost of harvesting roughage to be fed in drylot is included in the price charged for feed. Farmers using the drylot system must relate the higher cost of labor and machinery to the increased returns that may result from the following factors: shifting land from pasture to grain crops; an increase

in size of dairy herd and fixed acres of hay and pasture; or higher production per cow.

Returns above cost of feed was $361 per cow in 1969 (Table 7). This compares with the 10-year average of $261. The returns above feed cost per cow required to pay for all nonfeed costs are estimated to be about $337 per cow. This assumes that feed represents 50 percent of the total cost of the dairy enterprise while labor and capital make up the other 50 percent.

Dairy returns above feed costs per cow have been among the highest on record in 1967, 1968, and 1969. Gross returns from dairy enterprise in 1968 and 1969 have been high enough to pay cash expenses and market prices for all feed, labor, depreciation, and interest on investment. Reduction in the total number of cows in production, combined with steady demand for milk, has helped dairy herds provide returns competitive with those from other uses for feed, labor, and capital. As dairy herds become larger and as costs become higher, there is greater need for the dairy enterprise to be managed as a profit-making business.

Table 9. — Dairy-Cattle Enterprises, 1969

	All farms	Pasture days per animal unit		
		0	1–79	120 or more
Number of farms	240	83	52	62
Average per farm				
Number of cows in herd	41.5	46.1	46.6	27.8
Number of milk cows	41.0	45.4	46.4	27.6
Percent of milk cows dry	15.8	14.0	16.0	16.0
Animal units in herd	73.0	81.3	86.8	47.6
Pounds of beef produced	21,667	24,848	24,757	14,506
Total returns	$28,928	$33,122	$33,280	$18,761
Value of feed fed	$14,138	$16,476	$16,431	$ 9,202
Returns per $100 feed fed	$ 205	$ 201	$ 203	$ 204
Returns above feed per milk cow	$ 361	$ 367	$ 362	$ 346
Total pounds of milk produced	475,907	542,930	550,866	320,259
Pounds of milk per milk cow	11,613	11,956	11,872	11,604
Pounds of butterfat per milk cow	453	430	427	429
Pounds of beef per cow in herd	529	539	531	522
Death loss, percent of pounds produced	8.7	9.1	8.5	7.6
Feed cost per unit[a]	$ 20.41	$ 20.83	$ 20.59	$ 19.79
Price received for:				
100 lb. milk	$ 5.07	$ 5.18	$ 5.14	$ 4.90
100 lb. beef	$ 20.83	$ 21.24	$ 20.90	$ 21.50
Feed per unit of milk and beef:				
Grain, lb	329	326	319	345
Protein and minerals, lb	66	70	69	57
Total concentrates, lb	395	396	388	402
Hay and dry roughage, lb	354	304	344	455
Hay silage and soilage, lb	335	442	376	164
Corn and other silage, lb	775	956	868	400
Pasture (pasture days)	6	...	4	16
Pasture days per animal unit	58	...	36	156

[a] 1,000 pounds of milk or 100 pounds of beef.

Beef-cow herd

The minimum size of a beef-cow herd included in Table 10 was 10 or more cows. Farms with combinations of cow herds and purchased feeder cattle were not included. In addition to all farms, Table 10 shows an analysis of cow herds where calves were sold at weaning time, comparing them with those where calves were finished to slaughter weights. The average size of cow herd on all farms has changed little since 1956, ranging from 25 to 32 cows. Most Illinois farmers maintain a beef-cow herd as a supplemental enterprise to market nonsalable feeds and labor.

Returns per $100 feed fed to beef-cow herds in 1969 averaged $162, up $6 from 1968. Higher beef prices during 1969 more than offset the increased feed costs. Beef prices in 1969 averaged $26.33 compared to $24.79 in 1968, while feed costs increased from $15.73 to $16.72. In 1969 cow herd returns continued to increase from the low level of 1964.

In 1969 farms that sold calves received $62 per cow

Table 10. — Beef-Cow Enterprises, 1969

	All farms	Calves sold	Calves fed out
Number of farms	245	101	100
Average per farm			
Number of cows in herd	30.8	28.7	31.2
Animal units in herd	44.5	38.3	51.5
Total pounds produced	20,578	15,076	25,479
Total returns	$ 5,589	$ 4,249	$ 6,892
Value of feed fed	$ 3,441	$ 2,481	$ 4,385
Returns per $100 feed fed	$ 162	$ 171	$ 157
Pounds of beef per cow in herd	668	525	817
Pounds of death loss	1,024	987	1,041
Percent of pounds produced	5.0	6.5	4.1
Feed cost per unit[a]	$ 16.72	$ 16.46	$ 17.21
Price received per 100 pounds	$ 26.33	$ 27.19	$ 25.74
Feed per unit of milk and beef			
Grain, lb	223	92	285
Protein and mineral feeds, lb	30	25	33
Total concentrates, lb	253	117	318
Hay and dry roughage, lb.	465	583	434
Hay silage, lb	18	22	12
Corn and other silage, lb	222	209	165
Pasture (pasture days)	39	50	35

[a] 1,000 pounds of milk or 100 pounds of beef.

Table 11. — Poultry Enterprises, 1969

Items	All farms	Number of hens per farm			
		200–299	300–999	1,000–1,999	2,000 and over
Number of farms	55	11	24	3	17
Average per farm					
Pounds of poultry produced	3,233	478	723	797	9,895
Total returns	$17,072	$1,318	$2,584	$ 8,116	$55,887
Value of feed fed	$ 8,390	$ 880	$1,526	$ 4,240	$26,499
Returns per $100 feed fed	$ 203	$ 150	$ 169	$ 191	$ 211
Returns above feed cost per hen	$ 3.03	$ 1.92	$ 2.49	$ 2.71	$ 3.21
Average number of hens	2,868	228	478	1,430	9,147
Eggs produced per hen	218	195	188	215	223
Percent production	60	53	52	59	61
Feed requirement units[a]	54,349	3,975	7,835	26,156	176,185
Feed cost per unit	$ .15	$ .22	$ .19	$ .16	$ .15
Pounds of concentrates per unit	4.7	6.5	6.1	4.8	4.5
Cost per 100 pounds of concentrates	$ 3.30	$ 3.39	$ 3.20	$ 3.38	$ 3.33
Price per pound sold	$ .09	$ .11	$ .08	$ .06	$ .09
Price per dozen eggs sold	$ .39	$ .38	$ .39	$ .39	$ .40
Pounds of death loss	1,781	169	294	1,117	5,799

[a] One dozen eggs or 1.5 pounds of weight produced.

above value of feed fed, and farms that sold cattle at slaughter weights received $80 per cow above value of feed fed. These returns have increased each year since the low returns of only $6 per cow in 1964. The higher returns for those who sold slaughter cattle must be balanced against the added costs of labor, buildings, and capital required to feed out the calves produced from the cow herd.

Poultry enterprises

The minimum size of flock included in Table 11 is 200 hens. The average size of flock, omitting farms with less than 200 hens, was 2,868 hens. Since 1957, the pounds of feed concentrates per dozen eggs, or 1½ pounds of weight produced, have declined steadily each year from 6.8 in 1957 to 4.7 in 1969. This change in the feed-to-product ratio over the past 12 years is significant to the poultry enterprise.

For 1969 the feed cost per dozen eggs was 15 cents. The return above feed cost per hen of $3.03 in 1969 was $1.05 above the 1968 return and is almost $1 above the 10-year average of $2.04 (Table 7).

Farms with over 2,000 hens had returns above feed cost per hen of $3.21 compared with only $1.92 on farms with 200 to 299 hens (Table 11). This difference may not reflect the actual contribution of poultry laying flocks to farm income, since small flocks may utilize inputs of labor, equipment, and buildings that have limited alternative purposes. However, the higher production per hen on the farms with larger flocks indicates better management and a potentially higher return for labor and capital.

Sheep enterprises

Sheep production is a minor enterprise on record-keeping farms. The minimum size of enterprise in Table 12 was set at three animal units. One animal unit of sheep is defined as 750 pounds of liveweight. Returns per $100 feed fed in 1969 were $146 for native flocks. Pounds of wool and mutton produced per farm have remained fairly constant for the past 10 years. The majority of Illinois farmers who keep sheep do so as a supplemental enterprise to market nonsalable feeds and labor.

Table 12. — Sheep Enterprises, 1969

	Native flocks
Number of farms	83
Average per farm	
Pounds of wool and mutton produced	3,723
Total returns	$ 979
Value of feed fed	$ 669
Returns per $100 feed fed	$ 146
Percent lamb crop	115
Pounds of death loss	682
Death loss, percent of pounds produced	18.3
Feed cost per 100 pounds produced	$ 17.96
Price received per 100 pounds	$ 25.80
Price paid for sheep bought	$ 24.17
Feed per 100 pounds produced	
Concentrates, lb	302
Hay, lb	508
Silage, lb	7
Pasture (pasture days)	39

DEFINITION OF TERMS AND ACCOUNTING MEASURES

Soil-productivity rating

An average index representing the inherent productivity (low level of management) of all tillable land in the farm. Individual soil types on each farm are assigned an index ranging downward from 100.

Type of farm

Sampling technique. The records in each size group for northern Illinois were sampled to provide a proportional representation of all farms of that size range according to the 1964 census.

Grain farms. Farms where the value of feed fed was *less* than one-half of the feed and grain returns and value of feed fed to dairy or poultry was not more than one-sixth of the feed and grain returns.

Hog or beef farms. Farms where the value of feed fed was *more* than one-half of the feed and grain returns and either hog or beef-cattle enterprises received more than one-half of the value of feed fed.

Dairy or poultry farms. Farms where the value of feed fed was *more* than one-half of feed and grain returns and either dairy or poultry enterprises received more than one-third of the value of feed fed.

Cost items

Value of feed fed. Includes grains priced per bushel at the farm average as follows: corn — $1.14; oats — 60 cents; barley — 83 cents; soybeans — $2.47; rye — $1.06; wheat — $1.21. Commercial feeds were priced at actual cost, hay and silage at farm values, and pasture at 13 cents per animal unit pasture day. A pasture day represents an intake of approximately 20 to 25 pounds of dry matter. It has been defined as 16 pounds of total digestible nutrients (TDN) from pasture.

Table 13. — Average Prices Received and Paid by Farm Record Keepers

	1969		1968	
	Northern Illinois	Southern Illinois	Northern Illinois	Southern Illinois
Grain prices				
Corn sold	$1.12	$1.14	$1.00	$1.00
Soybeans sold	2.43	2.30	2.53	2.42
Wheat sold	1.19	1.17	1.24	1.18
Oats sold	.63	.86	.69	.83
Corn purchased	1.13	1.21	1.03	1.01
Oats purchased	.71	.96	.73	....
Livestock prices				
Hogs, all weights	$23.08		$18.54	
Fat cattle, all weights	29.15		26.29	
Feeder cattle, all weights, prices paid	30.65		26.97	
Dairy cattle, all weights	20.83		19.72	
Sheep, all weights	25.80		25.47	
Poultry	....		.07	
Milk	5.07		4.89	
Eggs	.39		.34	

Cash operating expenses. Includes annual cash outlays for nondepreciable items of fertilizer, machinery repairs, machine hire, gas and oil, electricity and telephone, farm share of auto, hired labor, seed and crop expense, taxes, building repairs, livestock, and miscellaneous expense. It does not include purchased feed and livestock since these have been deducted from gross receipts in computing the value of farm production.

Machinery and equipment. Includes depreciation, repairs, machine hire, gas and oil, electricity and telephone, and farm share of auto.

Labor. Includes hired labor plus family and operator's labor charged in 1969 at $400 and $375 a month respectively for northern and southern Illinois.

Interest charge on capital. Interest charged at 6 percent on January 1 inventory of remaining capital investment in grain, livestock, machinery and auto, buildings, and soil fertility, plus 4 percent interest on bare land priced at current land values.

Total nonfeed costs. Includes cash operating expenses, depreciation, and charges for unpaid labor and interest. Purchased feeds and livestock are omitted.

Value of land (current basis). A basic value on bare land is established for each farm according to the soil-productivity rating. This basic value is adjusted each year according to the index of land prices in Illinois as reported by the USDA.

Return items

Feed and grain returns. The sum of grain and feed sales, value of all feed fed (except milk), and change in value of feed and grain inventories less the value of feed purchased.

Value of farm production. Total cash sales of products and services, less purchased feed and livestock, plus change in inventory values of grain and livestock, plus value of farm products consumed.

Farm and family earnings. Value of farm production less cash operating expenses and depreciation. This figure includes the return to the farm and family for unpaid labor, interest on invested capital, and returns to management.

Labor and management earnings. Farm and family earnings less the value of family labor and interest charge on capital invested. This is the residual return to operator's labor and management efforts.

Capital and management earnings. Farm and family earnings less a charge for all unpaid labor.

Management returns. The residual surplus left after a charge for unpaid labor and interest charge on capital are deducted from farm and family earnings.

Table 14. — Average Costs, Returns, and Financial Summary of Grain Farms by Size and Soil Rating, Northern Illinois, 1969

	GRAIN FARMS WITH SOIL RATING 76-100						GRAIN FARMS WITH SOIL RATING 56-75				
Range in size (acres)....	180-259	260-339	340-499	500-649	650-799	800+	260-339	340-499	500-649	650-799	800+
Number of farms.....	106	141	186	88	51	40	64	100	53	22	26
Size of farm.....	228	304	417	564	721	1,044	304	406	574	720	1,004
Acres of till. land.....	213	287	387	526	672	972	278	356	507	632	810
Soil rating on till. land	85	84	84	84	83	83	69	69	68	69	69
Beef produced, cwt.....	41	52	76	85	114	297	47	123	145	84	363
Pork produced, cwt.....	157	165	312	346	382	319	176	252	364	428	466
DOLLAR COSTS PER FARM											
Soil fertility.....	2,267	$ 3,127	$ 4,351	$ 5,692	$ 7,903	$12,594	$ 2,569	$ 3,344	$ 5,274	$ 6,595	$10,075
Buildings and fence.....	1,514	1,593	1,943	2,380	3,449	4,559	1,525	1,853	2,675	2,273	3,425
Machinery and equipment..	6,126	7,466	9,063	12,077	15,281	23,111	7,337	8,823	11,397	13,376	18,040
Labor.....	4,619	5,146	5,760	7,414	9,479	12,389	5,334	5,579	7,233	9,177	10,304
Taxes.....	2,306	2,952	3,869	5,134	6,520	9,201	2,544	3,213	4,580	5,288	7,232
Seed and crop expense....	1,652	2,392	3,028	4,438	6,429	9,515	1,942	2,379	4,112	4,584	7,000
Livestock and misc.....	855	957	1,062	1,283	1,770	2,530	998	1,047	1,390	1,574	1,871
Interest on capital.....	8,534	11,112	14,760	19,448	25,413	36,816	9,125	11,518	16,356	19,450	25,378
Total non-feed costs.....	27,873	34,745	43,836	57,866	76,244	110,715	31,374	37,756	53,017	62,317	83,325
Total value of feed fed..	3,099	3,328	4,575	4,476	6,918	8,969	5,354	5,879	7,172	5,731	12,521
DOLLAR RETURNS PER FARM											
Feed and grain returns...	$24,199	$33,605	$44,894	$62,170	$80,916	$123,385	$28,746	$36,726	$53,291	$64,114	$85,161
Lstk. ret. above feed....	2,650	2,807	4,183	5,516	5,804	7,155	4,685	4,967	5,745	5,980	9,103
Custom work.....	532	811	670	929	1,471	2,715	494	413	909	1,702	1,123
Other cash income.....	526	632	666	781	1,056	1,591	687	648	791	1,161	1,634
Value of farm production.	27,907	37,855	50,413	69,396	89,247	134,846	34,612	42,754	60,736	72,957	97,021
Management returns.....	34	3,110	6,577	11,530	13,003	24,131	3,238	4,998	7,719	10,640	13,696
Farm production per $1.00 of non-feed costs.....	1.00	1.09	1.15	1.20	1.17	1.22	1.10	1.13	1.14	1.17	1.16
Farm production per man..	28,870	34,943	41,722	44,296	46,564	44,584	31,229	36,910	40,717	37,736	45,479
FINANCIAL SUMMARY											
Cash sales.....	$28,318	$38,085	$47,351	$66,805	$84,985	$134,090	$36,763	$44,767	$62,100	$75,756	$100,356
Sales of capital items...	219	58	159	248	201	721	159	133	551	233	142
Total cash income.....	28,537	38,143	47,510	67,053	85,186	134,811	36,922	44,900	62,651	75,989	100,498
Purchased livestock.....	1,679	2,289	2,233	2,095	3,022	11,533	2,791	3,979	4,434	4,160	7,099
Purchased feed.....	1,244	1,454	1,875	2,390	3,825	4,697	2,316	2,107	2,781	2,978	6,532
Cash operating expenses..	11,260	14,299	18,679	25,748	35,014	52,681	12,957	16,247	24,113	29,214	40,342
Purchase of capital items	3,131	3,353	5,100	5,892	9,663	14,123	3,732	4,507	6,529	7,752	15,195
Total cash expenditure...	17,314	21,395	27,887	36,125	51,524	83,034	21,796	26,840	37,857	44,104	69,168
Cash balance.....	$11,223	$16,748	$19,623	$30,928	$33,662	$51,777	$15,126	$18,060	$24,794	$31,885	$31,330
Inventory change.....	2,450	3,420	7,071	6,945	10,964	16,754	2,775	3,920	5,757	4,215	9,950
Capital change.....	-898	-1,251	-549	-1,710	-316	-773	-914	-650	-1,453	-107	4,402
Farm products consumed...	62	92	99	131	146	232	182	153	94	124	346
Farm and family earnings.	12,837	19,009	26,244	36,294	44,456	67,990	17,169	21,483	29,192	36,117	46,028
Labor and mgt. earnings..	4,163	7,666	11,141	16,258	17,748	29,111	7,716	9,446	12,278	15,740	18,342
Capital and mgt. earnings	8,568	14,222	21,337	30,978	38,416	60,947	12,363	16,516	24,075	30,090	39,074
Capital and mgt. per acre	37.58	46.78	51.17	54.92	53.28	58.38	40.67	40.68	41.94	41.79	38.92

Table 14a. — Average Operating Costs, Investments, and Land Use of Grain Farms by Size and Soil Rating, Northern Illinois, 1969

	GRAIN FARMS WITH SOIL RATING 76-100						GRAIN FARMS WITH SOIL RATING 56-75				
Range in size (acres)....	180-259	260-339	340-499	500-649	650-799	800+	260-339	340-499	500-649	650-799	800+
Number of farms.....	106	141	186	88	51	40	64	100	53	22	26
COSTS AND RETURNS PER TILLABLE ACRE											
Soil fertility.....	$ 10.64	$ 10.90	$ 11.24	$ 10.82	$ 11.76	$ 12.96	$ 9.24	$ 9.39	$ 10.40	$ 10.44	$ 12.44
Buildings and fence.....	7.11	5.55	5.02	4.52	5.13	4.69	5.48	5.20	5.28	3.60	4.23
Machinery and equipment..	28.76	26.01	23.42	22.96	22.74	23.78	26.39	24.78	22.48	21.16	22.27
Labor.....	21.69	17.93	14.88	14.10	14.10	12.74	19.19	15.67	14.27	14.52	12.72
Value of feed fed.....	14.55	11.60	11.82	8.51	10.29	9.23	19.26	16.51	14.14	9.07	15.46
Feed and grain returns...	113.61	117.10	116.00	118.19	120.41	126.94	103.40	103.16	105.11	101.45	105.14
Lstk. ret. above feed....	12.44	9.78	10.82	10.49	8.64	7.36	16.85	13.95	11.33	9.46	11.24
Value of farm production.	131.02	131.90	130.27	131.93	132.81	138.73	124.50	120.10	119.79	115.44	119.78
Total non-feed costs.....	130.86	121.06	113.27	110.01	113.46	113.90	112.86	106.06	104.57	98.60	102.87
Management returns.....	.16	10.84	17.00	21.92	19.35	24.83	11.64	14.04	15.22	16.84	16.91
SELECTED COST ITEMS											
Fertilizer, annual.....	$ 2,241	$ 3,101	$ 4,328	$ 5,633	$ 7,839	$12,579	$ 2,565	$ 3,325	$ 5,245	$ 6,594	$10,002
Building repairs.....	279	317	385	464	767	911	389	354	525	440	836
Building depreciation....	1,235	1,276	1,559	1,916	2,682	3,648	1,136	1,499	2,150	1,833	2,589
Mach. and equip. depr....	2,549	3,445	3,908	5,379	7,031	10,512	3,346	3,506	5,252	5,792	7,989
Mach. repairs, supplies..	1,248	1,540	1,973	2,766	3,495	6,058	1,527	1,854	2,510	3,228	4,466
Machinery hire.....	617	753	923	983	1,084	1,434	547	1,064	815	805	1,259
Gasoline and oil.....	1,043	1,283	1,565	2,083	2,537	3,886	1,259	1,580	1,914	2,440	3,183
Unpaid labor charge.....	4,269	4,787	4,907	5,316	6,040	7,043	4,806	4,967	5,117	6,027	6,954
Hired labor charge.....	350	359	853	2,098	3,439	5,346	528	612	2,116	3,150	3,350
Total months of labor...	11.6	13.0	14.5	18.8	23.0	29.8	13.3	13.9	17.9	23.2	25.6
Months of labor hired....	.9	1.0	2.2	5.5	7.9	12.2	1.3	1.5	5.1	8.1	8.2
FARM INVESTMENT											
Livestock inventory.....	$ 3,528	$ 3,713	$ 4,525	$ 5,904	$ 8,389	$13,554	$ 5,893	$ 7,507	$ 9,213	$ 5,570	$17,543
Grain inventory.....	13,283	17,270	23,651	31,234	42,491	64,822	15,910	18,259	26,667	34,911	34,704
Remaining capital cost in											
Machinery and auto.....	9,856	12,478	15,595	21,739	25,787	39,150	12,395	13,089	19,472	22,770	28,739
Buildings and fence....	12,648	13,484	17,783	21,699	28,727	37,806	11,981	15,484	22,168	16,978	22,934
Soil fertility.....	69	53	57	158	152	34	11	67	80	1	150
Value of land (current)..	154,385	207,156	276,570	368,199	477,000	687,361	158,851	206,223	292,819	365,885	478,333
Total farm investment....	193,769	254,154	338,181	448,933	582,546	842,727	205,041	260,629	370,419	446,115	582,403
Total invest. per acre...	849.86	836.03	810.98	795.98	807.97	807.21	674.48	642.94	645.33	619.60	580.08
Machinery investment per tillable acre.....	46.27	43.48	40.30	41.33	38.37	40.28	44.59	36.77	38.41	36.03	35.48
PERCENT OF TILL. LAND IN											
Corn and corn silage.....	50.5	54.3	50.7	49.0	55.2	52.6	47.8	46.0	54.9	45.0	46.9
Soybeans.....	32.3	30.6	33.2	33.3	29.3	34.4	30.7	30.3	27.2	32.8	28.5
Wheat.....	1.5	1.9	1.8	2.7	2.0	1.9	2.7	4.0	2.6	4.1	4.0
Other small grains.....	2.9	2.3	1.7	1.7	2.3	.8	3.2	2.0	1.7	1.6	2.4
Diverted acres.....	8.6	7.2	8.5	9.1	6.3	8.1	10.2	11.0	9.3	13.1	12.8
All hay and pasture crops	3.5	2.8	3.8	2.4	2.2	1.3	4.8	4.8	3.6	2.1	4.5
CROP YIELDS, bu. per acre											
Corn.....	123.6	124.8	125.8	128.8	124.3	131.4	117.3	113.6	113.3	111.4	119.5
Soybeans.....	41.4	41.6	41.2	42.4	41.6	44.5	37.5	38.3	37.8	37.6	38.2
Wheat.....	54.3	54.2	49.8	48.3	53.8	49.7	43.1	45.8	43.0	45.9	47.5
Oats.....	71.4	72.8	75.8	80.7	75.5	78.7	67.2	60.2	68.8	62.5	66.6

Table 15. — Average Costs, Returns, and Financial Summary of Hog Farms by Size and Soil Rating, Northern Illinois, 1969

	HOG FARMS WITH SOIL RATING 76-100					HOG FARMS WITH SOIL RATING 56-75				
Range in size (acres).....	-180	180-259	260-339	340-499	500+	-180	180-259	260-339	340-499	500+
Number of farms.....	37	48	38	23	14	22	34	31	46	32
Size of farm.....	153	226	297	415	656	146	232	301	405	677
Acres of till. land.....	141	210	272	374	551	125	203	242	324	480
Soil rating on till. land.....	84	82	82	81	81	69	68	67	66	65
Beef produced, cwt.....	69	124	179	231	453	50	107	185	245	589
Pork produced, cwt.....	1,611	1,793	1,795	2,506	3,718	1,755	1,407	1,883	2,158	2,767
DOLLAR COSTS PER FARM										
Soil fertility.....	$ 1,631	$ 2,845	$ 3,259	$ 4,057	$ 8,908	$ 1,495	$ 2,171	$ 3,131	$ 4,557	$ 6,586
Buildings and fence.....	2,124	2,606	3,003	3,666	6,667	2,549	2,458	3,065	2,883	4,945
Machinery and equipment.....	6,515	8,611	10,279	12,932	18,823	6,321	7,516	9,425	11,988	15,636
Labor.....	5,554	6,133	6,780	8,783	13,719	5,676	5,660	6,555	7,864	11,254
Taxes.....	1,726	2,462	2,905	3,686	5,337	1,468	1,957	2,382	2,835	4,364
Seed and crop expense.....	1,495	2,212	2,579	3,531	6,495	1,229	1,961	2,222	2,894	4,642
Livestock and misc.....	1,641	1,855	2,262	3,681	4,643	1,858	2,017	1,873	2,332	3,168
Interest on capital.....	6,980	9,838	12,066	16,261	24,075	6,014	8,210	9,774	12,118	18,820
Total non-feed costs.....	27,666	36,562	43,133	56,597	88,667	26,610	31,950	38,427	47,471	69,415
Total value of feed fed.....	19,982	23,392	25,393	35,692	50,803	23,113	19,028	25,318	30,937	45,470
DOLLAR RETURNS PER FARM										
Feed and grain returns.....	$16,145	$23,024	$30,035	$41,210	$ 68,501	$13,355	$20,292	$23,596	$31,359	$46,029
Lstk. ret. above feed.....	21,943	25,159	25,373	33,115	56,716	24,648	20,351	25,899	29,958	37,151
Custom work.....	294	453	740	291	515	124	221	382	460	633
Other cash income.....	467	552	737	782	1,286	1,594	696	906	873	1,912
Value of farm production.....	38,849	49,188	56,885	75,398	127,018	39,721	41,490	50,783	62,650	85,725
Management returns.....	11,183	12,626	13,752	18,801	38,351	13,111	9,540	12,356	15,179	16,310
Farm production per $1.00 of non-feed costs.....	1.40	1.34	1.32	1.33	1.43	1.49	1.30	1.32	1.31	1.23
Farm production per man.....	34,028	40,153	39,919	44,136	49,974	34,291	34,574	37,618	38,554	39,263
FINANCIAL SUMMARY										
Cash sales.....	$47,186	$60,863	$67,589	$86,405	$143,933	$53,050	$49,558	$63,045	$77,122	$120,198
Sales of capital items.....	43	21	202	3	300	36	24	60	992	125
Total cash income.....	47,229	60,884	67,791	86,408	144,233	53,086	49,582	63,105	78,114	120,323
Purchased livestock.....	3,574	4,824	6,466	5,849	14,768	2,304	5,864	5,260	7,605	19,678
Purchased feed.....	11,113	12,889	12,071	19,057	25,719	16,002	8,927	13,200	15,676	21,757
Cash operating expenses.....	11,621	16,104	18,944	26,526	44,930	11,898	14,005	17,381	22,280	34,974
Purchase of capital items.....	5,451	6,130	6,931	9,032	21,541	4,707	4,462	6,028	10,905	11,876
Total cash expenditures.....	31,759	39,947	44,412	60,464	106,958	34,911	33,258	41,869	56,466	88,285
Cash balance.....	$15,470	$20,937	$23,379	$25,944	$37,275	$18,175	$16,324	$21,236	$21,648	$32,038
Inventory change.....	6,265	5,896	7,633	13,592	23,326	4,793	6,554	5,947	8,518	6,661
Capital change.....	1,008	446	251	645	8,493	826	-359	38	2,969	1,662
Farm products consumed.....	85	143	200	307	246	185	169	251	292	300
Farm and family earnings.....	22,828	27,422	31,463	40,488	69,340	23,979	22,688	27,472	33,427	40,661
Labor and mgt. earnings.....	15,680	17,230	18,405	23,488	42,951	17,420	14,105	16,911	19,892	20,941
Capital and mgt. earnings.....	18,163	22,464	25,819	35,062	62,426	19,125	17,750	22,130	27,297	35,130
Capital and mgt. per acre.....	118.71	99.40	86.93	84.49	95.16	130.99	76.51	73.52	67.40	51.89

Table 15a. — Average Operating Costs, Investments, and Land Use of Hog Farms by Size and Soil Rating, Northern Illinois, 1969

	HOG FARMS WITH SOIL RATING 76-100					HOG FARMS WITH SOIL RATING 56-75				
Range in size (acres)	-180	180-259	260-339	340-499	500+	-180	180-259	260-339	340-499	500+
Number of farms	37	48	38	23	14	22	34	31	46	32
COSTS AND RETURNS PER TILLABLE ACRE										
Soil fertility	$ 11.57	$ 13.55	$ 11.98	$ 10.85	$ 16.17	$ 11.96	$ 10.69	$ 12.93	$ 14.06	$ 13.72
Buildings and fence	15.06	12.41	11.04	9.80	12.10	20.39	12.11	12.66	8.89	10.30
Machinery and equipment	46.21	41.00	37.79	34.58	34.16	50.55	37.02	38.94	37.00	32.58
Labor	39.39	29.20	24.93	23.48	24.90	45.41	27.88	27.08	24.27	23.44
Value of feed fed	141.72	111.39	93.36	95.43	92.20	184.90	93.73	104.61	95.48	94.73
Feed and grain returns	114.50	109.64	110.43	110.19	124.33	106.85	99.96	97.50	96.78	95.89
Lstk. ret. above feed	155.62	119.80	93.28	88.54	102.93	197.18	100.25	107.02	92.46	77.40
Value of farm production	275.52	234.23	209.14	201.60	230.52	317.77	204.38	209.83	193.34	178.59
Total non-feed costs	196.21	174.10	158.58	151.33	160.92	212.88	157.39	158.78	146.50	144.61
Management returns	79.31	60.13	50.56	50.27	69.60	104.89	46.99	51.05	46.84	33.98
SELECTED COST ITEMS										
Fertilizer, annual	$ 1,628	$ 2,828	$ 3,189	$ 4,010	$ 8,730	$ 1,494	$ 2,158	$ 3,119	$ 4,539	$ 6,550
Building repairs	499	667	1,007	858	1,853	799	743	876	940	1,433
Building depreciation	1,625	1,939	1,996	2,808	4,814	1,750	1,715	2,189	1,943	3,512
Mach. and equip. depr	2,772	3,706	4,412	5,529	7,756	2,093	3,069	3,729	4,982	6,542
Mach. repairs, supplies	1,341	1,771	2,406	3,047	4,831	1,435	1,491	2,207	2,929	4,046
Machinery hire	665	989	860	999	1,601	755	920	1,071	1,060	1,193
Gasoline and oil	951	1,256	1,560	2,106	2,680	1,030	1,113	1,439	1,924	2,471
Unpaid labor charge	4,665	4,958	5,645	5,426	6,914	4,854	4,938	5,342	6,130	5,531
Hired labor charge	889	1,175	1,135	3,357	6,805	822	722	1,213	1,734	5,723
Total months of labor	13.7	14.7	17.1	20.5	30.5	13.9	14.4	16.2	19.5	26.2
Months of labor hired	2.1	2.3	3.0	7.0	13.2	1.7	2.1	2.8	4.2	12.4
FARM INVESTMENT										
Livestock inventory	$12,122	$18,538	$17,218	$26,582	$39,741	$15,497	$15,249	$18,868	$24,604	$46,186
Grain inventory	9,990	13,687	18,116	22,361	40,624	9,544	11,922	15,708	18,744	30,615
Remaining capital cost in										
Machinery and auto	10,483	14,242	16,653	20,966	32,236	7,822	11,680	14,745	18,844	25,541
Buildings and fence	15,077	18,473	19,515	28,120	35,946	17,154	20,129	20,390	21,475	31,670
Soil fertility	7	46	139	131	349	3	28	38	61	66
Value of land (current)	103,376	147,457	194,185	259,270	378,523	75,320	116,747	139,954	177,332	269,372
Total farm investment	151,055	212,443	265,826	357,430	527,419	125,340	175,755	209,703	261,060	403,450
Total invest per acre	987.29	940.01	895.04	861.28	803.99	858.49	757.56	696.68	644.59	595.94
Machinery investment per tillable acre	74.35	67.82	61.22	56.06	58.58	62.58	57.54	60.92	58.16	53.21
PERCENT OF TILL. LAND IN										
Corn and corn silage	69.8	67.2	59.7	60.9	66.6	70.6	59.8	54.4	58.9	56.7
Soybeans	10.4	10.9	17.6	16.8	18.1	2.5	15.6	16.4	17.1	14.5
Wheat	.3	.3	2.1	1.0	.9	.2	1.1	3.5	3.9	3.1
Other small grains	8.5	9.5	7.2	6.1	2.9	11.9	7.8	5.3	5.0	5.2
Diverted acres	3.2	2.9	5.3	4.7	6.4	4.6	6.8	6.6	3.2	6.7
All hay and pasture crops	7.7	8.8	6.9	8.6	5.1	10.2	8.6	13.5	11.3	12.8
CROP YIELDS, bu. per acre										
Corn	120.0	118.2	117.8	117.3	128.6	109.3	107.7	108.9	106.6	102.8
Soybeans	43.7	44.7	43.7	44.8	45.3	42.4	37.9	37.5	40.1	36.2
Wheat	47.6	46.6	52.5	64.7	59.9	27.5	39.9	43.4	42.4	37.7
Oats	74.7	71.0	71.0	70.1	68.0	67.4	70.7	64.9	50.8	56.6

Table 16. — Average Costs, Returns, and Financial Summary of Grain and Hog Farms by Size and Soil Rating, Southern Illinois, 1969

	GRAIN FARMS WITH SOIL RATING 5-55					HOG FARMS WITH SOIL RATING 5-55			
Range in size (total acres)	180-259	260-339	340-499	500-749	750-1000	180-259	260-339	340-499	500+
Number of farms	25	34	71	48	37	24	23	50	36
Size of farm	224	304	404	601	998	223	294	415	707
Acres of tillable land	203	269	342	505	794	189	231	323	524
Soil rating on tillable land	34	34	34	32	32	36	35	34	34
Beef produced, hundredweight	70	69	1/	1/	1/	50	95	235	1/
Pork produced, hundredweight	277	297	1/	1/	1/	1,378	868	1,858	1/
DOLLAR COSTS PER FARM									
Soil fertility	$ 1,708	$ 2,286	$ 3,146	$ 5,627	$ 7,608	$ 2,158	$ 2,610	$ 3,595	$ 6,019
Buildings and fence	978	1,209	1,316	1,963	2,511	2,085	1,891	2,838	3,442
Machinery and equipment	5,834	6,577	8,340	10,950	14,829	7,482	7,282	10,993	13,560
Labor	4,971	5,323	5,075	6,520	9,815	5,150	5,776	6,772	9,606
Taxes	1,216	1,399	1,764	2,295	3,565	1,192	1,338	1,925	2,596
Seed and crop expense	1,357	1,661	2,117	3,223	4,827	1,307	1,582	2,341	3,598
Livestock and miscellaneous expense	544	892	795	1,050	1,508	1,195	1,260	1,797	1,930
Interest charge on capital	3,866	4,907	6,206	8,794	13,204	4,993	5,210	7,781	11,326
Total non-feed costs	20,474	24,254	28,759	40,422	57,867	25,562	26,949	38,042	52,077
Total value of feed fed	4,600	5,133	5,420	6,797	11,146	16,032	16,977	24,612	34,005
DOLLAR RETURNS PER FARM									
Feed and grain returns	$16,373	$21,486	$26,055	$37,554	$57,613	$14,426	$16,326	$23,674	$35,635
Livestock returns above feed cost	3,891	5,134	4,757	6,371	9,635	17,824	18,745	23,764	31,639
Custom work	331	687	537	1,025	692	551	467	364	228
Other cash income	387	674	712	1,161	1,951	570	1,058	901	1,508
Total value of farm production	20,982	27,981	32,061	46,111	69,891	33,371	36,596	48,703	69,010
Management returns	508	3,727	3,302	5,689	12,024	7,809	9,647	10,661	16,933
Farm production per $1.00 of non-feed costs	1.02	1.15	1.11	1.14	1.21	1.30	1.36	1.28	1.33
Farm production per man	18,650	23,317	28,082	31,261	31,769	28,603	27,972	31,763	32,348
FINANCIAL SUMMARY									
Cash sales of products and services	$23,845	$29,497	$34,329	$47,845	$74,140	$42,389	$46,811	$63,633	$83,523
Sales of capital items	191	16	90	897	777	14	48	120	32
Total cash income	24,036	29,513	34,419	48,742	74,917	42,403	46,859	63,753	83,555
Purchased livestock	1,607	1,959	2,451	2,420	5,870	4,081	3,287	8,121	10,710
Purchased feed	1,654	1,922	1,902	2,862	4,369	8,878	10,466	13,093	15,326
Cash operating expenses	8,570	10,350	13,045	19,543	30,081	10,851	12,294	18,123	26,110
Purchase of capital items	2,165	4,017	4,587	7,317	10,238	7,133	8,358	10,314	11,489
Total cash expenditures	13,996	18,248	21,985	32,142	50,558	30,943	34,405	49,651	63,635
Cash balance	$10,040	$11,265	$12,434	$16,600	$24,359	$11,460	$12,454	$14,102	$19,920
Inventory change	242	2,188	1,896	2,566	5,704	3,792	3,277	5,969	11,235
Capital change	-1,369	-	-430	392	1,462	2,166	3,847	3,070	3,337
Farm products consumed	156	178	190	175	286	149	260	315	288
Farm and family earnings	9,069	13,631	14,090	19,733	31,811	17,567	19,838	23,456	34,780
Labor and management earnings	4,888	8,216	7,411	9,962	16,519	11,981	14,090	14,973	21,381
Capital and management earnings	4,374	8,634	9,508	14,483	25,228	12,802	14,857	18,442	28,259
Capital and management earnings per acre	19.52	28.40	23.53	24.10	25.28	57.41	50.53	44.44	39.97

1/ Not available.

Table 16a. — Average Operating Costs, Investments, and Land Use of Grain and Hog Farms by Size and Soil Rating, Southern Illinois, 1969

	GRAIN FARMS WITH SOIL RATING 5-55					HOG FARMS WITH SOIL RATING 5-55			
Range in size (total acres)	180-259	260-339	340-499	500-749	750-1000	180-259	260-339	340-499	500+
Number of farms	25	34	71	48	37	24	23	50	36
COSTS AND RETURNS PER TILLABLE ACRE									
Soil fertility	$ 8.41	$ 8.50	$ 9.20	$ 11.14	$ 9.58	$ 11.60	$ 11.30	$ 11.13	$ 11.49
Buildings and fence	4.82	4.49	3.85	3.89	3.16	11.21	8.19	8.79	6.57
Machinery and equipment	28.74	24.45	24.38	21.68	18.68	40.22	31.52	34.03	25.89
Labor	24.49	19.79	14.84	12.91	12.36	27.69	25.00	20.97	18.34
Value of feed fed	22.66	19.08	15.85	13.46	14.04	86.19	73.49	76.20	64.91
Feed and grain returns	80.66	79.87	76.18	74.36	72.56	77.56	70.67	73.29	68.02
Livestock returns above feed cost	19.17	19.09	13.91	12.62	12.13	95.83	81.15	73.57	60.40
Total value of farm production	103.35	104.02	93.74	91.31	88.02	179.41	158.42	150.78	131.73
Total non-feed costs	100.85	90.16	84.09	80.04	72.88	137.43	116.66	117.78	99.41
Management returns	2.50	13.86	9.65	11.27	15.14	41.98	41.76	33.00	32.32
SELECTED COST ITEMS									
Fertilizer, annual application	$ 1,693	$ 2,251	$ 3,111	$ 5,519	$ 7,517	$ 2,053	$ 2,599	$ 3,474	$ 5,973
Building repairs and maintenance	234	491	416	465	730	588	647	965	1,242
Building depreciation	744	718	900	1,498	1,781	1,497	1,244	1,873	2,200
Machinery and equipment depreciation	2,584	3,248	3,991	5,229	6,127	3,351	3,209	5,130	5,874
Machinery repairs and supplies	1,271	1,412	1,802	2,580	3,709	1,746	1,732	2,695	3,203
Machinery hire	385	275	537	629	1,464	554	463	665	1,418
Gasoline and oil	999	1,063	1,367	1,774	2,676	1,092	1,146	1,598	2,025
Unpaid labor charge	4,695	4,997	4,582	5,250	6,583	4,765	4,981	5,014	6,521
Hired labor charge	276	326	493	1,270	3,232	385	795	1,758	3,085
Total months of labor	13.5	14.4	13.7	17.7	26.4	14.0	15.7	18.4	25.6
Months of labor hired	1.0	1.0	1.4	3.7	8.8	1.3	2.5	5.0	8.2
FARM INVESTMENT									
Livestock inventory	$ 4,622	$ 5,214	$ 5,833	$ 7,258	$12,644	$12,293	$11,955	$21,341	$26,543
Grain inventory	6,798	9,105	10,116	16,007	19,632	8,919	10,210	13,678	17,710
Remaining capital cost in:									
Machinery and auto, Buildings and fence, Soil fertility	16,398	19,213	23,584	32,535	41,333	24,068	20,263	34,437	39,057
Value of land (current basis)	54,930	72,421	96,570	135,469	219,696	56,901	66,604	90,352	158,192
Total farm investment	82,748	105,953	136,103	191,269	293,305	102,181	109,032	159,808	241,502
Total farm investment per acre	369.41	348.53	336.89	318.25	293.89	458.21	370.86	385.08	341.59
PERCENT OF TILLABLE LAND IN									
Corn and corn silage	39.5	35.5	40.1	46.7	40.0	49.2	45.8	49.8	45.4
Soybeans	34.4	35.5	31.1	25.4	31.0	20.7	25.7	21.1	20.3
Wheat	11.2	11.3	13.1	12.3	12.6	11.2	12.4	11.1	10.7
Other small grains	1.1	1.4	.6	.1	1.0	.4	.1	.6	.4
Diverted acres	7.5	8.6	7.2	7.5	7.4	7.7	5.9	5.5	6.6
All hay and pasture crops	5.0	6.4	5.9	5.5	6.3	8.5	8.9	8.4	12.7
CROP YIELDS, bushels per acre									
Corn	84.7	93.7	86.1	80.9	81.4	82.1	85.5	80.9	77.4
Soybeans	36.4	33.0	31.4	30.0	31.0	32.9	28.6	31.4	30.0
Wheat	40.0	40.2	37.4	38.6	38.4	39.9	35.3	35.2	34.2
Oats	32.9	25.9	35.2	33.6	41.5	70.0	...	38.5	15.0

Table 17. — Average Costs, Returns, and Financial Summary of Dairy Farms by Size and Soil Rating, Northern and Southern Illinois, 1969

	DAIRY FARMS, NORTHERN ILLINOIS, WITH SOIL RATING OF					DAIRY FARMS, SOUTHERN ILLINOIS, WITH SOIL RATING OF			
	76-100	56-75	56-100			5-55			
Range in size (total acres)	Under 180		180-259	260-339	340+	Under 180	180-259	260-339	340+
Number of farms	23	24	37	20	21	16	25	24	30
Size of farm	134	153	215	298	458	142	211	292	529
Acres of tillable land	122	131	186	256	384	118	189	244	425
Soil rating on tillable land	83	65	71	71	70	31	29	28	33
Dairy cows, number	31.6	37.0	40.3	43.7	57.4	1/	39.9	1/	1/
Beef produced, handredweight	1/	1/	1/	24	58	1/	1	1/	1/
Pork produced, handredweight	39	133	178	271	436	1/	143	1/	1/
DOLLAR COSTS PER FARM									
Soil fertility	$ 955	$ 1,194	$ 1,486	$ 2,329	$ 4,494	$ 1,218	$ 1,996	$ 2,996	$ 4,512
Buildings and fence	1,721	2,019	2,690	2,911	3,741	1,408	1,900	2,474	3,911
Machinery and equipment	6,346	6,405	8,444	10,317	14,099	6,073	8,352	10,984	15,342
Labor	6,259	6,190	6,909	8,026	10,874	6,261	6,355	7,880	11,938
Taxes	1,641	1,582	2,207	2,787	3,821	912	1,222	1,548	2,593
Seed and crop expense	981	1,088	1,425	1,932	3,210	666	947	1,327	2,668
Livestock and miscellaneous expense	1,643	1,924	2,324	2,641	3,542	1,616	2,025	1,999	3,536
Interest charge on capital	5,857	5,763	8,245	10,531	14,971	3,337	5,028	6,189	10,352
Total non-feed costs	25,403	26,165	33,730	41,474	58,752	21,491	27,825	35,397	54,852
Total value of feed fed	10,978	14,913	16,229	20,063	27,905	11,315	16,611	18,057	27,912
DOLLAR RETURNS PER FARM									
Feed and grain returns	$12,006	$12,601	$17,603	$23,257	$37,224	$ 7,987	$13,974	$18,831	$33,216
Livestock returns above feed cost	12,323	15,275	16,654	18,957	26,435	14,120	16,388	18,484	27,553
Custom work	145	44	349	637	489	81	347	98	408
Other cash income	364	571	583	869	1,261	790	704	1,166	1,441
Total value of farm production	24,838	28,491	35,189	43,720	65,409	22,978	31,413	38,579	62,618
Management returns	-565	2,326	1,459	2,246	6,657	1,487	3,588	3,182	7,766
Farm production per $1.00 of non-feed costs	.98	1.08	1.04	1.05	1.11	1.07	1.13	1.09	1.14
Farm production per man	19,481	21,503	24,694	27,184	30,188	16,813	21,917	21,634	24,556
FINANCIAL SUMMARY									
Cash sales of products and services	$28,347	$31,611	$38,286	$49,536	$72,458	$26,332	$37,933	$45,228	$71,398
Sales of capital items	3	6	60	6	10	25	24	13	166
Total cash income	28,350	31,617	38,346	49,542	72,468	26,357	37,957	45,241	71,564
Purchased livestock	1,283	802	1,175	1,680	3,706	345	698	3,230	3,323
Purchased feed	3,983	3,511	4,399	5,692	7,385	4,585	6,641	5,923	9,330
Cash operating expenses	10,417	10,438	14,224	18,476	28,573	9,192	12,087	16,709	27,480
Purchase of capital items	4,516	4,607	7,547	7,238	7,102	5,407	6,667	8,035	11,351
Total cash expenditures	20,199	19,358	27,345	33,086	46,766	19,529	26,093	33,897	51,484
Cash balance	$ 8,151	$12,259	$11,001	$16,456	$25,702	$ 6,828	$11,864	$11,344	$20,080
Inventory change	1,475	725	2,081	1,205	3,681	1,275	440	1,935	3,295
Capital change	949	545	2,032	905	-1,333	1,765	1,317	1,367	1,328
Farm products consumed	282	277	395	351	454	300	380	569	578
Farm and family earnings	10,857	13,806	15,509	18,917	28,504	10,168	14,001	15,215	25,281
Labor and management earnings	3,905	7,126	6,259	7,046	11,419	5,940	8,088	7,682	12,366
Capital and management earnings	5,292	8,089	9,704	12,777	21,628	4,824	8,616	9,371	18,118
Capital and management earnings per acre	39.49	52.87	45.13	36.16	47.22	33.97	40.83	32.09	34.25

1/ Not available.

Table 17a. — Average Operating Costs, Investments, and Land Use of Dairy Farms by Size and Soil Rating, Northern and Southern Illinois, 1969

	DAIRY FARMS, NORTHERN ILLINOIS, WITH SOIL RATING OF					DAIRY FARMS, SOUTHERN ILLINOIS, WITH SOIL RATING OF			
	76-100	56-75	56-100			5-55			
Range in size (total acres)	Under 180		180-259	260-339	340+	Under 180	180-259	260-339	340+
Number of farms	23	24	37	20	21	16	25	24	30
COSTS AND RETURNS PER TILLABLE ACRE									
Soil fertility	$ 7.83	$ 9.11	$ 7.99	$ 9.10	$ 11.70	$ 10.33	$ 10.55	$ 12.30	$ 10.63
Buildings and fence	14.11	15.41	14.46	11.37	9.74	11.94	10.04	10.15	9.21
Machinery and equipment	52.02	48.89	45.40	40.30	36.72	51.47	44.12	45.09	36.13
Labor	51.30	47.25	37.14	31.35	28.32	53.06	33.57	32.34	28.12
Value of feed fed	89.98	113.84	87.25	78.37	72.67	95.90	87.75	74.12	65.74
Feed and grain returns	98.41	96.19	94.64	90.85	96.94	67.70	73.82	77.30	78.23
Livestock returns above feed cost	101.01	116.60	89.54	74.05	68.84	119.68	86.57	75.87	64.89
Total value of farm production	203.59	217.49	189.19	170.78	170.33	194.75	165.95	158.36	147.47
Total non-feed costs	208.22	199.73	181.34	162.01	153.00	182.15	146.99	145.30	129.18
Management returns	-4.63	17.76	7.85	8.77	17.33	12.60	18.96	13.06	18.29
SELECTED COST ITEMS									
Fertilizer, annual application	$ 955	$ 1,184	$ 1,486	$ 2,322	$ 4,429	$ 1,188	$ 1,946	$ 2,931	$ 4,431
Building repairs and maintenance	469	416	599	788	1,017	496	491	629	1,282
Building depreciation	1,252	1,603	2,091	2,123	2,724	912	1,409	1,845	2,629
Machinery and equipment depreciation	2,312	2,634	3,365	4,197	5,543	2,676	3,866	4,745	7,147
Machinery repairs and supplies	1,553	1,366	2,075	2,371	3,370	1,379	1,756	2,774	3,841
Machinery hire	724	757	684	1,049	1,435	684	674	796	807
Gasoline and oil	944	810	1,246	1,472	2,139	717	1,104	1,644	2,140
Unpaid labor charge	5,565	5,717	5,805	6,140	6,876	5,344	5,385	5,844	7,163
Hired labor charge	694	473	1,104	1,886	3,998	917	970	2,036	4,775
Total months of labor	15.3	15.9	17.1	19.3	26.0	16.4	17.2	21.4	30.6
Months of labor hired	1.4	1.6	2.6	3.9	8.8	2.1	2.8	5.8	11.5
FARM INVESTMENT									
Livestock inventory	$10,126	$12,506	$15,605	$18,424	$24,261	$10,863	$15,476	$14,615	$27,643
Grain inventory	7,050	8,207	10,516	14,379	20,244	4,163	7,655	10,115	15,807
Remaining capital cost in:									
Machinery and auto	7,186	9,652	11,191	16,665	20,380				
Buildings and fence	14,193	18,379	24,322	22,824	30,937	20,108	29,440	39,097	56,191
Soil fertility	...	37	...	14	200				
Value of land (current basis)	89,217	70,895	113,677	154,810	230,246	30,741	46,834	58,985	109,342
Total farm investment	127,772	119,676	175,311	227,116	326,268	65,875	99,405	122,812	208,983
Total farm investment per acre	953.52	782.20	815.40	762.13	712.38	463.91	471.11	420.59	395.05
Machinery investment per tillable acre	58.90	73.68	60.17	65.10	53.07	...	...	...	...
PERCENT OF TILLABLE LAND IN									
Corn and corn silage	48.2	47.0	46.8	44.8	52.8	44.8	44.3	44.6	38.8
Soybeans	7.4	...	5.8	10.1	9.0	4.6	16.6	13.8	19.6
Wheat	1.3	...	.3	...	.7	7.9	10.7	10.9	12.8
Other small grains	12.3	13.1	13.1	9.9	8.8	.3	.8	.7	.5
Diverted acres	2.5	.7	4.5	6.9	4.6	1.0	2.6	2.6	3.5
All hay and pasture crops	26.2	37.1	27.5	26.5	23.0	41.0	20.4	24.4	21.9
CROP YIELDS, bushels per acre									
Corn	110.0	111.9	109.3	104.2	110.6	65.4	79.8	76.3	78.2
Soybeans	41.3	...	40.3	38.6	36.4	33.3	28.4	29.6	29.8
Wheat	57.2	...	48.3	...	51.0	32.8	29.7	39.2	34.9
Oats	66.7	61.4	65.9	61.8	68.2	...	56.0	50.0	41.8

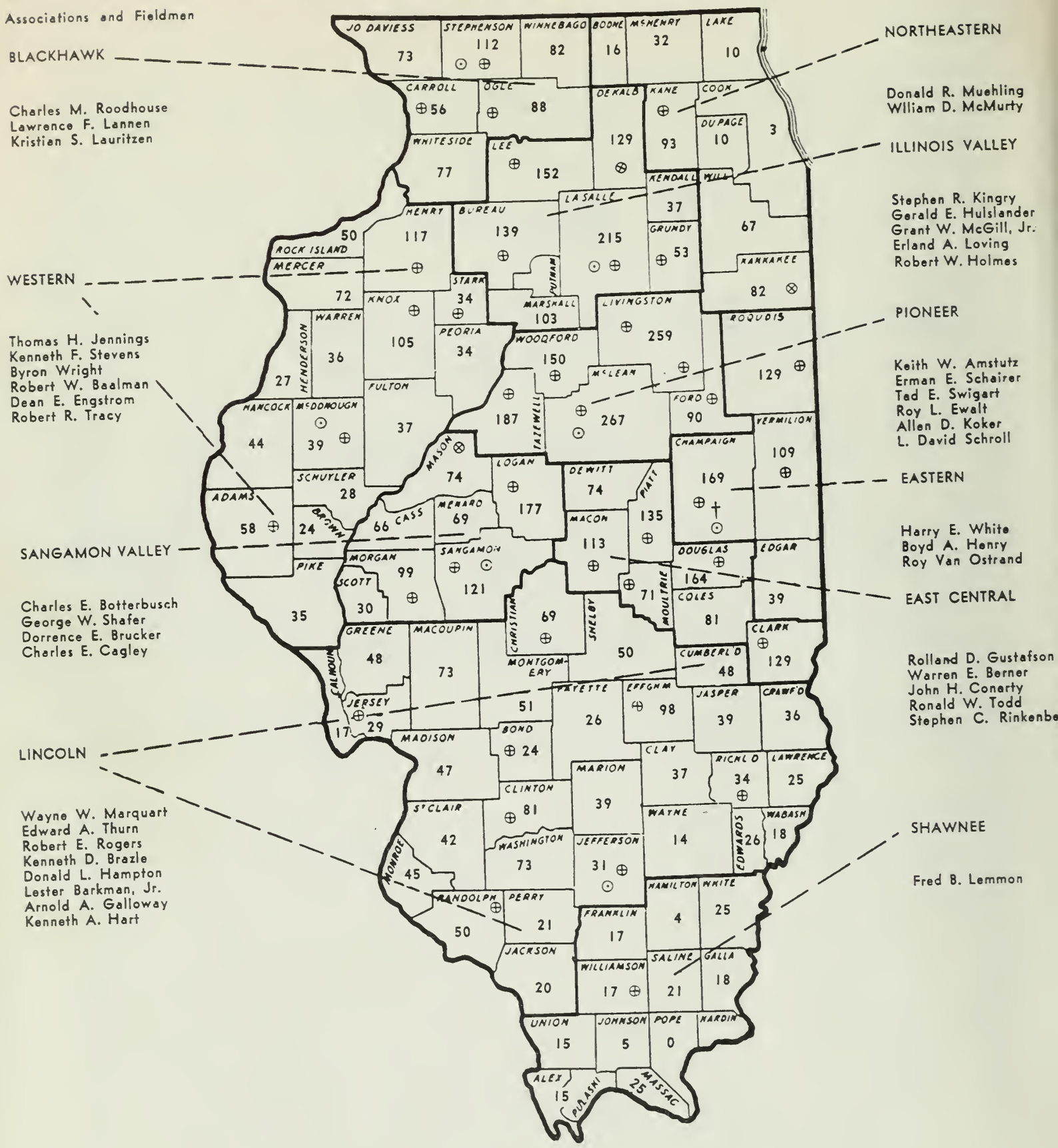
Table 18. — Average Costs, Returns, and Financial Summary of Beef-Cattle and Poultry Farms by Size and Soil Rating, Northern and Southern Illinois, 1969

	BEEF-CATTLE FARMS, NORTHERN ILLINOIS SOIL RATING 56-100					BEEF-CATTLE FARMS, SOUTHERN ILLINOIS SOIL RATING 5-55		POULTRY FARMS, NORTHERN ILL. SOIL RATING 56-100
Range in size (total acres)	Under 180	180-259	260-339	340-499	500+	Under 500	500+	All
Number of farms	15	29	38	50	33	26	19	13
Size of farm	152	224	301	402	681	329	787	249
Acres of tillable land	130	200	275	349	579	274	506	234
Soil rating on tillable land	75	75	76	74	72	30	37	77
Hens, number	...	...	...	...	...	...	...	11,733
Beef produced, hundredweight	671	1,083	1,198	1,574	2,529	717	1,623	122
Pork produced, hundredweight	252	367	664	624	689	570	658	54
DOLLAR COSTS PER FARM								
Soil fertility	$ 1,279	$ 2,730	$ 3,900	$ 4,896	$ 9,642	$ 2,754	$ 5,659	$ 2,585
Buildings and fence	2,015	3,065	3,752	4,311	6,518	2,344	3,587	4,033
Machinery and equipment	5,815	7,967	10,103	12,460	18,968	8,867	14,006	15,688
Labor	4,330	5,560	6,532	7,904	11,672	5,818	9,793	11,368
Taxes	1,590	2,568	3,205	3,841	6,466	1,627	2,838	3,042
Seed and crop expense	1,301	2,073	2,677	3,466	6,210	1,776	2,998	2,206
Livestock and miscellaneous expense	1,035	1,663	2,008	2,470	3,061	1,196	2,164	2,166
Interest charge on capital	6,889	10,356	14,008	17,083	27,201	7,067	13,633	12,032
Total non-feed costs	24,254	35,982	46,185	56,431	89,738	31,449	54,678	53,120
Total value of feed fed	16,744	26,117	32,135	39,954	56,866	20,762	33,207	38,667
DOLLAR RETURNS PER FARM								
Feed and grain returns	$15,790	$23,404	$31,381	$39,800	$62,378	$22,718	$34,479	$27,133
Livestock returns above feed cost	8,459	14,598	21,049	22,397	29,234	13,483	24,327	40,278
Custom work	367	477	543	601	603	255	246	1,002
Other cash income	329	656	823	943	1,569	716	1,711	936
Total value of farm production	24,945	39,135	53,796	63,741	93,784	37,172	60,763	69,349
Management returns	691	3,153	7,611	7,310	4,046	5,723	6,085	16,229
Farm production per $1.00 of non-feed costs	1.03	1.09	1.16	1.13	1.04	1.18	1.11	1.31
Farm production per man	27,212	33,306	40,097	40,046	40,776	29,938	28,934	30,372
FINANCIAL SUMMARY								
Cash sales of products and services	$47,196	$81,534	$103,527	$133,126	$195,838	$66,931	$104,955	$119,346
Sales of capital items	16	143	356	28	177	208	226	223
Total cash income	47,212	81,677	103,883	133,154	196,015	67,139	105,181	119,569
Purchased livestock	26,127	42,209	45,322	67,350	88,483	27,412	45,618	24,268
Purchased feed	4,600	9,270	11,231	14,281	18,303	7,461	12,110	31,528
Cash operating expenses	9,329	15,015	19,189	25,027	42,179	14,397	27,091	23,774
Purchase of capital items	2,016	7,790	9,578	10,273	13,417	6,301	11,874	9,048
Total cash expenditures	42,072	74,284	85,320	116,931	162,382	55,571	96,693	88,618
Cash balance	$ 5,140	$ 7,393	$18,563	$16,223	$33,633	$11,568	$ 8,488	$30,951
Inventory change	8,212	8,820	6,358	11,855	4,244	4,773	13,267	5,647
Capital change	-1,983	1,805	1,682	1,427	-1,094	737	2,726	-2,151
Farm products consumed	264	250	464	392	488	342	270	152
Farm and family earnings	11,633	18,268	27,067	29,897	37,271	17,420	24,751	34,599
Labor and management earnings	4,664	7,567	12,343	11,894	8,737	10,050	10,585	21,029
Capital and management earnings	7,580	13,509	21,619	24,393	31,247	12,790	19,718	28,261
Capital and management earnings per acre	49.87	67.54	71.82	60.68	45.88	38.88	25.05	113.50

Table 18a. — Average Operating Costs, Investments, and Land Use of Beef-Cattle and Poultry Farms by Size and Soil Rating, Northern and Southern Illinois, 1969

	BEEF-CATTLE FARMS, NORTHERN ILLINOIS SOIL RATING 56-100					BEEF-CATTLE FARMS, SOUTHERN ILLINOIS SOIL RATING 5-55		POULTRY FARMS, NORTHERN ILL. SOIL RATING 56-100
Range in size (total acres)	Under 180	180-259	260-339	340-499	500+	Under 500	500+	All
Number of farms	15	29	38	50	33	26	19	13
COSTS AND RETURNS PER TILLABLE ACRE								
Soil fertility	$ 9.84	$ 13.65	$ 14.18	$ 14.03	$ 16.65	$ 10.05	$ 11.18	$ 11.05
Buildings and fence	15.50	15.32	13.64	12.35	11.26	8.55	7.09	17.24
Machinery and equipment	44.73	39.84	36.74	35.70	32.76	32.36	27.68	67.04
Labor	33.31	27.80	23.75	22.65	20.16	21.23	19.35	48.58
Value of feed fed	128.80	130.59	116.85	114.48	98.21	75.77	65.63	165.24
Feed and grain returns	121.46	117.02	114.11	114.04	107.73	82.91	68.14	115.95
Livestock returns above feed cost	65.07	72.99	76.54	64.17	50.50	49.21	48.08	172.13
Total value of farm production	191.88	195.67	195.62	182.63	161.98	135.66	120.08	296.36
Total non-feed costs	186.57	179.91	167.94	161.69	154.99	114.78	108.06	227.01
Management returns	5.31	15.76	27.68	20.94	6.99	20.88	12.02	69.35
SELECTED COST ITEMS								
Fertilizer, annual application	$ 1,231	$ 2,632	$ 3,819	$ 4,873	$ 9,565	$ 2,719	$ 5,490	$ 2,539
Building repairs and maintenance	523	644	926	1,099	1,462	742	1,152	641
Building depreciation	1,492	2,421	2,826	3,212	5,056	1,602	2,435	3,392
Machinery and equipment depreciation	2,443	3,333	4,633	5,582	9,201	3,718	6,317	7,538
Machinery repairs and supplies	1,287	1,572	2,163	2,672	4,420	1,994	3,643	2,971
Machinery hire	618	1,038	965	1,411	1,266	1,102	872	1,122
Gasoline and oil	948	1,251	1,501	1,872	2,817	1,397	2,090	1,975
Unpaid labor charge	4,053	4,759	5,448	5,504	6,024	4,630	5,033	6,338
Hired labor charge	277	801	1,084	2,400	5,648	1,188	4,760	5,030
Total months of labor	11.0	14.1	16.1	19.1	27.6	14.9	25.2	27.4
Months of labor hired	.8	2.2	13.6	5.3	12.6	2.6	11.8	11.6
FARM INVESTMENT								
Livestock inventory	$21,557	$33,518	$44,594	$53,626	$89,180	$28,481	$47,209	$17,831
Grain inventory	10,845	14,943	21,808	24,083	41,946	12,641	19,922	14,963
Remaining capital cost in:								
Machinery and auto	8,353	13,141	17,934	20,639	31,342			25,894
Buildings and fence	16,041	25,377	30,387	36,201	48,993	30,829	49,003	35,452
Soil fertility	76	142	103	64	132			159
Value of land (current basis)	86,919	128,221	177,960	224,345	360,506	69,338	166,701	159,347
Total farm investment	143,791	215,342	292,786	358,958	572,099	141,289	282,835	253,646
Total farm investment per acre	945.99	961.35	972.71	892.93	840.09	429.45	359.38	1,018.66
Machinery investment per tillable acre	64.25	65.70	65.21	59.14	54.13	...	...	110.66
PERCENT OF TILLABLE LAND IN								
Corn and corn silage	71.1	67.0	62.8	66.9	68.0	42.6	47.1	52.7
Soybeans	2.3	6.6	10.8	8.5	10.1	20.1	12.7	30.2
Wheat	.6	.2	.4	.6	1.5	12.3	9.4	.8
Other small grains	6.6	8.7	7.7	6.5	5.1	.4	1.7	3.4
Diverted acres	2.3	4.8	6.3	5.0	3.7	5.4	7.8	11.1
All hay and pasture crops	16.2	11.4	11.4	11.0	9.2	15.7	16.5	1.9
CROP YIELDS, bushels per acre								
Corn	118.0	120.8	122.0	114.9	111.7	91.1	78.0	121.1
Soybeans	37.2	41.8	40.3	41.9	36.7	32.0	29.5	43.0
Wheat	58.9	58.6	39.6	47.8	41.3	37.8	36.8	49.3
Oats	75.7	74.4	69.0	70.0	64.9	27.0	43.3	82.0

ASSOCIATIONS, FIELDMEN, AND COOPERATORS ENROLLED



Prepared by D. F. Wilken and R. P. Kesler of the Department of Agricultural Economics

August, 1970

Urbana, Illinois

Issued in furtherance of Cooperative Extension Work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Deportment of Agriculture. JOHN B. CLAAR, Director, Cooperative Extension Service, University of Illinois at Urbana-Champaign.

15M—8-70—15082